IMPERIAL GAZETTEER.

UNITED PROVINCES,

RIVERS, MOUNTAINS, LAKES, CANALS, AND HISTORIC AREAS.



Allahabad:

PRINTED AT THE GOVERNMENT PRESS, UNITED PROVINCES

1905

RIVERS, MOUNTAINS, LAKES, CANALS, AND HISTORIC AREAS.

CONTENTS.

* **Ganges** *(Gangā)* —The great river in northern India which carries off the drainage of the southern Himālayas, and also a smaller volume received from the northern and eastern slopes of the Vindhyas. It rises in the Tehrī State, in 30° 55′ N. and 79° 7′ E., where it issues under the name of Bhāgīrathi from an ice cave at the foot of a Himālayan snow-bed near Gangotrī, 13,800 feet above the level of the sea. During its earlier course it receives the Jāhnavī from the north-west, and subsequently the Alaknandā, after which the united stream is called Ganges. It pierces the Himālayas at Sukhī, and turns south-west to Hardwār. From this point it flows south and south-east between the Meerut and Rohilkhand Divisions of the United Provinces, and then separates the latter from the Agra Division, and flows through the eastern part of the Farrukhābād District. It next forms the south-western boundary of Oudh and then crosses the Districts of Allahābād, Mirzāpur, Benares, and Ghāzīpur, after which it divides the Districts of Ghāzīpur and Balliā from Bengal. The Ganges is a considerable river even at Hardwār, where the UPPER GANGES CANAL starts, and it is tapped again at Naraura for the LOWER GANGES CANAL. It thus supplies the largest irrigation works in the United Provinces, and is also the source of the water-supply of the large cities of Meerut (by a canal), Cawnpore, and Benares. The largest tributaries are the RAMGANGA, (Farrukhābād), JUMNA and TONS (Allahābād), GUMTI (Ghāzīpur), and GOGRA (Balliā), while smaller affluents are the Mālin (Bijnor), Būrhgangā (Meerut), Mahīwa (Budaun), Sot or Yār-i-Wafādār (Shāhjahānpur), Būrhgangā and Kālī Nadī (Farrukhābād), Isan (Cawnpore), Pāndū (Fatehpur), Jirgo (Mirzāpur), Barnā (Benares), Gangī and Basu (Ghāzīpur), and Chhotī Sarjū (Balliā), which is called the Tons in its upper portion. The principal towns on or near its banks are Srīnagar (on the Alaknandā branch), Hardwār, Garhmuktesar, Anūpshahr, Soron, Farrukhābād (now left some miles away), Kanauj, Bilhaur, Bithūr, Cawnpore, Dalmau, Mānikpur, Karā, Allahābād, Sirsā, Mirzāpur, Chunār, Benares, Ghāzīpur, and Balliā.

* To be reproduced in the Bengal Provincial volume.—*E. B.*

*Ganges (*Gangā*).—The great river in northern India which carries off the drainage of the southern Himālayas, and also a smaller volume received from the northern and eastern slopes of the Vindhyas It rises in the Tehrī State, in 30° 55′ N. and 79° 7′ E, where it issues under the name of Bhāgīrathi from an ice cave at the foot of a Himālayan snow-bed near Gangotrī, 13,800 feet above the level of the sea During its earlier course it receives the Jāhnavī from the north-west, and subsequently the Alaknandā, after which the united stream is called Ganges It pierces the Himālayas at Sukhī, and turns south-west to Hardwār From this point it flows south and south east between the Meerut and Rohilkhand Divisions of the United Provinces, and then separates the latter from the Agra Division, and flows through the eastern part of the Farrukhābād District. It next forms the south-western boundary of Oudh and then crosses the Districts of Allahābad, Mirzāpur, Benares, and Ghazīpur, after which it divides the Districts of Ghāzīpur and Balliā from Bengal The Ganges is a considerable river even at Hardwār, where the UPPER GANGES CANAL starts, and it is tapped again at Naraura for the LOWER GANGES CANAL It thus supplies the largest irrigation works in the United Provinces, and is also the source of the water-supply of the large cities of Meerut (by a canal), Cawnpore, and Benares The largest tributaries are the RAMGANGA, (Farrukhābād), JUMNA and TONS (Allahābād), GUMTI (Ghazīpur), and GOGRA (Balliā), while smaller affluents are the Mālin (Bijnor), Būrhgangā (Meerut), Mahāwa (Budaun), Sot or Yār-i-Wafādār (Shāhjahānpur), Būrhgangā and Kālī Nadī (Farrukhābād), Isan (Cawnpore), Pāndū (Fatehpur), Jirgo (Mirzāpur), Barnā (Benares), Gangī and Basu (Ghāzīpur), and Chhotī Sarjū (Balliā), which is called the Tons in its upper portion. The principal towns on or near its banks are Srīnagar (on the Alaknandā branch), Hardwār, Garhmuktesar, Anūpshahr, Soron, Farrukhābād (now left some miles away), Kanauj, Bilhaur, Bithūr, Cawnpore, Dalmau, Mānikpur, Karā, Allahābād, Sirsā, Mirzāpur, Chunār, Benares, Ghāzīpur, and Balliā.

* To be reproduced in the Bengal Provincial volume.—*R B*

Impinging on the Shāhābād District in Bengal, in N. and 83° 52′ E., the Ganges forms the boundary of District, separating it from the United Provinces, till it re as a tributary the GOGRA on the north bank. It afterwards receives another important tributary, the SON the south, then passes Patna, and obtains another ac to its volume from the GANDAK, which rises in Nepāl. to the east, it receives the KOSI, and then, skirting t mahāl Hills, turns sharply to the south, passing near of the ruined city of Gaur. By this time it has ap to within 240 miles of the sea. About 20 miles fu the Ganges begins to branch out over the level coun this spot marks the commencement of the delta 220 miles in a straight line, or nearly 300 by the of the river, from the Bay of Bengal. The prese channel, assuming the name of the PADMA, proceeds in easterly direction past Pābna to Goalundo, where it by the Jamunā, the main stream of the BRAHMAPUTI bed is here several miles wide, and the river is split several channels, flowing between constantly shifting san and islands. In the rains the current is very strong an steamers find difficulty in making headway against it. Th confluence of water rushes towards the sea, joining the MEGHNA estuary in 23° 13′ N., and 90° 33′ E., after the Gan had a course of 540 miles in Bengal, and 1,557 miles from its s

The Meghnā estuary, however, is only the larges most easterly of a great number of Ganges mouths a which may be mentioned the HOOGHLY, Mātla, Raim Mālanchā and HARINGHATA. The most westerly and the important for navigation is the Hooghly, on which s Calcutta. This receives the water of the three western distributary channels that start from the parent Gang or near Murshidābād District, and it is to this exit by channels of the Bhāgīrathi and Hooghly that the sanctit the river clings. Between the Hooghly on the west and Meghnā on the east lies the Ganges delta. The upper a of this consists of the Districts of Murshidābād, Nadiā,* Jes and the 24-Parganas. These Districts have for the most been raised above the level of periodical inundation by

build any structure of a large or permanent character on the margin.

The junction of two or more rivers, called Prayāg, is usually considered sacred, but that of the Ganges and Jumna at Allahābād, where according to popular belief the SARASWATI, which sinks away in the sands at Bhatner in Rājputāna, reappears from its subterranean course, is one of the most holy places in India. Here, on the spit of land below the fort, a large bathing festival is held annually in the month of Māgh (January). Every twelve years the fair is called the *kumbh melā*, as it is held when Jupiter is in Aquarius *(kumbh)*, and the sun in Aries, and the efficacy of bathing is increased, large numbers of pilgrims from every part of India flocking to the junction. At the last *Kumbh* in 1894 the attendance at the fair was estimated at a million to a million and-a-half.

The holiest places upon its banks, in Bengal, are SONPUR at its confluence with the Gandak, and SAGAR ISLAND at the mouth of the Hooghly. Both places are the scene of annual bathing festivals, which are frequented by thousands of pilgrims from all parts of India. Even at the present day, the six years' pilgrimage from the source of the Ganges to the mouth, and back again, known as *pradakshina*, is performed by many; and a few fanatical devotees may yet be seen wearily accomplishing this meritorious penance by measuring their length.

Most rivers in India have sanctity attached to them, but the Ganges is considered especially sacred. Its importance in Vedic literature is slight, but in the epics and Purānas it receives much attention. Sagar, the thirty-eighth king of the Solar Dynasty, had performed the great horse sacrifice *(Asvamedha)* ninety-nine times. In this ceremony the horse wandered over the world, unhaltered and never guided or driven. Every country it entered was conquered by the following army, and on its return it was sacrificed to the gods. When Sagar drove out a horse for the hundredth time, the god Indra stole it and tied it up in Pātāl (the under world) near the place where a sage, Kapila Muni, was meditating. Sagar had two wives, one of whom bore Asmanjas, and the other had sixty thousand sons who were following the horse. The latter found it, and believing Kapila was the thief abused him, and were consumed to ashes in

consequence of the sage's curse. Ansmān, son of Asmanjas, had gone in search of his uncles, and finding the horse took it home. Garur, the mythical half man, half-bird, king of the snakes, told him that the sin of those who had abused Kapila could best be removed by bringing to earth the Ganges, which then flowed in heaven (Brahma Lok). In spite of much prayer and the practice of austerities by Ansmān and his son, Dalip, this could not be brought about; but Bhagirath, son of Dalip, persuaded Brahma to grant him a boon, and he chose the long sought permission to allow the Ganges to flow on this world. Brahmā agreed, but told Bhagirath that the earth could not sustain the shock, and advised him to consult Siva, who consented to break the force of the river by allowing it to fall on his head. The ice-cavern beneath the glacier, from which the stream descends, is represented as the tangled hair of Siva. One branch, the Mandakini, still flows through Brahma Lok; a second, which passes through Patal, washed away the sin of the sixty thousand; and the third branch is the Ganges.* Besides the places which have already been referred to, Gangotri, near the source, Deva Prayag, Garhmuktesar, Soron, Dalmau, and Benares are the principal bathing resorts. The sanctity of the river still exists everywhere, though according to prophecy it should have passed away to the Narbada a few years ago. Dying persons are taken to expire on its banks, corpses are carried to be burned there, and ashes of the dead are brought from long distances to be thrown in its holy stream, in the hope of attaining eternal bliss for the deceased. About the time of the regular festivals the roads to the river are crowded with pilgrims, who keep up an incessant cry of salutation to the great goddess *(Gangā jī ki jai)*. On their return they carry away bottles of the sacred water to their less fortunate relations.

Till within the last forty years of the 19th century, after which the extension of railways provided a quicker means of transport, the magnificent stream of the Ganges formed almost the sole channel of traffic between upper India and the seaboard, and high masonry landing places for steamers still exist at Allahabād and other places lower down, though they are no

* A variant of the legend represents the ashes of [illegible] having been purified by the BHAGIRATHI, a branch of the [illegible]

longer used. The products of the river valley, and the cotton of the Central Provinces and Central India, used formerly to be conveyed by this route to Calcutta. At present it is chiefly used for the carriage of wood and grain in many parts of its course, and also of oilseeds, saltpetre, stone and sugar in the eastern portion of the United Provinces. The principal import to these Provinces is rice, but manufactured goods and metals are also carried in considerable quantities. The canal dam at Naraura in the Bulandshahr District has stopped through traffic between the upper and lower courses of the Ganges.

In Bengal, however, the Ganges may yet rank as one of the most frequented waterways in the world. The downward traffic is most brisk in the rainy season, when the river comes down in flood. During the rest of the year the boats make their way back up stream, often without cargoes, either helped by a favourable wind or laboriously towed along the bank. The most important traffic in Bengal is in food-grains and oil-seeds, and, though no complete comparative statistics are available, it appears probable that the actual amount of traffic on the Ganges by native craft has not at all diminished since the opening of the railway, to which the river is not only a rival, but a feeder. Stations situated on the banks form centres of collection and distribution for the surrounding country, and fishing villages like Goalundo have by this means been raised into river marts of the first magnitude. Steamer services ply along its whole course within Bengal, and many towns lie on its banks, the most important being PATNA and MONGHYR.

Six railway bridges cross the river: near Roorkee, at Garhmuktesar (2,332 feet), Rājghāt, Cawnpore (2,900 feet), and Benares (3,518 feet), while the sixth, measuring 3,000 feet, was completed near Allahābād in 1905. The normal flood discharge varies from 207,000 cubic feet per second, at Hardwār, where the bed is steep and only 2,500 feet wide, to 300,000 at Garhmuktesar and 150,000 at Naraura (width at canal weir 3,880 feet and about a mile above it). The bridge at Allahābād is designed to allow the discharge of a million cubic feet per second. The normal flood level falls from 942 feet above the sea at Hardwār to 287 at Allahābād.

Solāni—River in the United Provinces It rises in the Siwalik hills (30° 13′ N, 77° 59′ E) from the highest point of the Mohan Pass, flows south and south east through Saharanpur District, and then winds through a corner of Muzaffarnagar, joining the GANGES after a course of about 55 miles The upper part of the river and most of its tributaries are only water courses almost dry except in the rains, when they carry off the drainage of the Siwaliks in rushing torrents Near Roorkee a magnificent aqueduct of brick, with 15 arches, each 50 feet wide, conveys the water of the UPPER GANGES CANAL at a height of 24 feet above the bed of this river The Solani has done much damage by its floods and changes in its course In Muzaffarnagar this was intensified by percolation from the Ganges Canal, but drainage cuts have improved the tract

Ramganga West (also known as Ruhut or Ruput in its upper courses)—A river of the United Provinces, which rises in the Garhwal District (30° 14′ N, 80° 7′ E) in the hills some distance south of the snowy range of the Himalayas It flows for about 90 miles with a very rapid fall, first through Garhwal, then through Kumaun, and after entering Garhwal again debouches on the plains near the Kalagarh fort, south of the peak of the same name, in the Bijnor District It is now a large river, and 15 miles lower down receives on its right bank the Khoh which also rises in Garhwal Both these streams are liable to sudden floods owing to heavy rain in their upper courses Their beds abound in quicksands and their channels are shifting The Ramganga passes south east through Moradabad District and the Rampur State, into the Bareilly District, after which it flows south between Budaun and Shahjahanpur, and after crossing the last-mentioned District, flows through the eastern *tahsil* of Farrukhabad District and part of Hardoi District into the GANGES, a little above Kanauj, after a total course of about 370 miles Throughout its course in the plains it receives many small streams from the Tarai and a few larger tributaries whose sources are in the Himalayas The Kosi in Moradabad District, the Dojora, formed by the Kichha, West Bahgul, Dhakra and Bhakra rivers in Bareilly, and the Deoha or Garra in Shahjahanpur are the most important of these During its whole course in the plains the Ramganga flows

longer used. The products of the river valley, and the cotton of the Central Provinces and Central India, used formerly to be conveyed by this route to Calcutta. At present it is chiefly used for the carriage of wood and grain in many parts of its course, and also of oilseeds, saltpetre, stone and sugar in the eastern portion of the United Provinces. The principal import to these Provinces is rice, but manufactured goods and metals are also carried in considerable quantities. The canal dam at Naraura in the Bulandshahr District has stopped through traffic between the upper and lower courses of the Ganges.

In Bengal, however, the Ganges may yet rank as one of the most frequented waterways in the world. The downward traffic is most brisk in the rainy season, when the river comes down in flood. During the rest of the year the boats make their way back up stream, often without cargoes, either helped by a favourable wind or laboriously towed along the bank. The most important traffic in Bengal is in food-grains and oil-seeds, and, though no complete comparative statistics are available, it appears probable that the actual amount of traffic on the Ganges by native craft has not at all diminished since the opening of the railway, to which the river is not only a rival, but a feeder. Stations situated on the banks form centres of collection and distribution for the surrounding country, and fishing villages like Goalundo have by this means been raised into river marts of the first magnitude. Steamer services ply along its whole course within Bengal, and many towns lie on its banks, the most important being PATNA and MONGHYR.

Six railway bridges cross the river: near Roorkee, at Garhmuktesar (2,332 feet), Rājghāt, Cawnpore (2,900 feet), and Benares (3,518 feet), while the sixth, measuring 3,000 feet, was completed near Allahābād in 1905. The normal flood discharge varies from 207,000 cubic feet per second, at Hardwār, where the bed is steep and only 2,500 feet wide, to 300,000 at Garhmuktesar and 150,000 at Naraura (width at canal weir 3,880 feet and about a mile above it). The bridge at Allahābād is designed to allow the discharge of a million cubic feet per second. The normal flood level falls from 942 feet above the sea at Hardwār to 287 at Allahābād.

Solāni.—River in the United Provinces. It rises in the Siwālik hills (30° 13′ N., 77° 59′ E.) from the highest point of the Mohan Pass, flows south and south-east through Sahāranpur District, and then winds through a corner of Muzaffarnagar, joining the GANGES after a course of about 55 miles. The upper part of the river and most of its tributaries are only water-courses, almost dry except in the rains, when they carry off the drainage of the Siwāliks in rushing torrents. Near Roorkee a magnificent aqueduct of brick, with 15 arches, each 50 feet wide, conveys the water of the UPPER GANGES CANAL at a height of 24 feet above the bed of this river. The Solāni has done much damage by its floods and changes in its course. In Muzaffarnagar this was intensified by percolation from the Ganges Canal, but drainage cuts have improved the tract.

Rāmgangā West (also known as Ruhut or Ruput in its upper courses).—A river of the United Provinces, which rises in the Garhwāl District (30° 14′ N., 80° 7′ E.) in the hills some distance south of the snowy range of the Himālayas. It flows for about 90 miles with a very rapid fall, first through Garhwāl, then through Kumaun, and after entering Garhwāl again debouches on the plains near the Kālāgarh fort, south of the peak of the same name, in the Bijnor District. It is now a large river, and 15 miles lower down receives on its right bank the Khoh which also rises in Garhwāl. Both these streams are liable to sudden floods owing to heavy rain in their upper courses. Their beds abound in quicksands, and their channels are shifting. The Rāmgangā passes south-east through Morādābād District and the Rāmpur State, *into the Bareilly District*, after which it flows south between Budaun and Shāhjahānpur, and after crossing the last-mentioned District, flows through the eastern *tahsīl* of Farrukhābād District and part of Hardoī District into the GANGES, a little above Kanauj, after a total course of about 370 miles. Throughout its course in the plains it receives many small streams from the Tarai and a few larger tributaries whose sources are in the Himālayas. The Kosi in Morādābād District, the Dojorā, formed by the Kichhā, West Bahgul, Dhakrā and Bhakrā rivers in Bareilly, and the Deohā or Garrā in Shāhjahānpur are the most important of these During its whole course in the plains the R-

longer used. The products of the river valley, and the cotton of the Central Provinces and Central India, used formerly to be conveyed by this route to Calcutta. At present it is chiefly used for the carriage of wood and grain in many parts of its course, and also of oilseeds, saltpetre, stone and sugar in the eastern portion of the United Provinces. The principal import to these Provinces is rice, but manufactured goods and metals are also carried in considerable quantities. The canal dam at Naraura in the Bulandshahr District has stopped through traffic between the upper and lower courses of the Ganges.

In Bengal, however, the Ganges may yet rank as one of the most frequented waterways in the world. The downward traffic is most brisk in the rainy season, when the river comes down in flood. During the rest of the year the boats make their way back up stream, often without cargoes, either helped by a favourable wind or laboriously towed along the bank. The most important traffic in Bengal is in food-grains and oil-seeds, and, though no complete comparative statistics are available, it appears probable that the actual amount of traffic on the Ganges by native craft has not at all diminished since the opening of the railway, to which the river is not only a rival, but a feeder. Stations situated on the banks form centres of collection and distribution for the surrounding country, and fishing villages like Goalundo have by this means been raised into river marts of the first magnitude. Steamer services ply along its whole course within Bengal, and many towns lie on its banks, the most important being PATNA and MONGHYR.

Six railway bridges cross the river: near Roorkee, at Garhmuktesar (2,332 feet), Rājghāt, Cawnpore (2,900 feet), and Benares (3,518 feet), while the sixth, measuring 3,000 feet, was completed near Allahābād in 1905. The normal flood discharge varies from 207,000 cubic feet per second, at Hardwār, where the bed is steep and only 2,500 feet wide, to 300,000 at Garhmuktesar and 150,000 at Naraura (width at canal weir 3,880 feet and about a mile above it). The bridge at Allahābād is designed to allow the discharge of a million cubic feet per second. The normal flood level falls from 942 feet above the sea at Hardwār to 287 at Allahābād.

Solāni.—River in the United Provinces. It rises in the Siwālik hills (30° 13′ N., 77° 59′ E.) from the highest point of the Mohan Pass, flows south and south-east through Sahāranpur District, and then winds through a corner of Muzaffarnagar, joining the GANGES after a course of about 55 miles. The upper part of the river and most of its tributaries are only water-courses, almost dry except in the rains, when they carry off the drainage of the Siwāliks in rushing torrents. Near Roorkee a magnificent aqueduct of brick, with 15 arches, each 50 feet wide, conveys the water of the UPPER GANGES CANAL at a height of 24 feet above the bed of this river. The Solāni has done much damage by its floods and changes in its course. In Muzaffarnagar this was intensified by percolation from the Ganges Canal, but drainage cuts have improved the tract.

Rāmgangā West (also known as Ruhut or Ruput in its upper courses).—A river of the United Provinces, which rises in the Garhwāl District (30° 14′ N., 80° 7′ E.) in the hills some distance south of the snowy range of the Himālayas. It flows for about 90 miles with a very rapid fall, first through Garhwāl, then through Kumaun, and after entering Garhwāl again debouches on the plains near the Kālāgarh fort, south of the peak of the same name, in the Bijnor District. It is now a large river, and 15 miles lower down receives on its right bank the Khoh which also rises in Garhwāl. Both these streams are liable to sudden floods owing to heavy rain in their upper courses. Their beds abound in quicksands, and their channels are shifting. The Rāmgangā passes south-east through Morādābād District and the Rāmpur State, into the Bareilly District, after which it flows south between Budaun and Shāhjahānpur, and after crossing the last-mentioned District, flows through the eastern *tahsīl* of Farrukhābād District and part of Hardoī District into the GANGES, a little above Kanauj, after a total course of about 370 miles. Throughout its course in the plains it receives many small streams from the Tarai and a few larger tributaries whose sources are in the Himālayas. The Kosi in Morādābād District, the Dojorā, formed by the Kichhā, West Bahgul, Dhakrā and Bhakrā rivers in Bareilly, and the Deohā or Garrā in Shāhjahānpur are the most important of these. During its whole course in the plains the Rāmgangā flows in

a shifting and uncertain channel. It changed its ' the middle of the 19th century so as to run into and pass Bareilly city; in the rains of 1871 it former course 10 miles distant, but has once more ap the city. During floods it spreads out widely on eit and carves out new channels for itself, often fertility of the land covered by a layer of sand. It used for irrigation.

Kālī Nadī East (properly Kālindī, corrupted Nadī or black river by Persian writers).—A river through the Muzaffarnagar, Meerut, Bulandshahr, Alī and Farrukhābād Districts of the United Provinces. under the name Nāgan in Muzaffarnagar (29° 19′ N., E.), but in this District as well as in Meerut its bed is and often dry. In Bulandshahr it becomes a running through a valley marked by high banks, and name of Kālī Nadī. Its course then changes from south-east till it joins the GANGES not far above K miles from its source. The valley of the river in and in Etah, Mainpurī, and Farrukhābād, has suff excessive rainfall, the effects in Bulandshahr being exag by the use of the river as a canal escape. Of late yea over, the Irrigation department has carried out a works to improve the flow, and deterioration has stop 1884 a flood swept away the Nadrai aqueduct in Etah carries the Lower Ganges Canal over this river, and of wet seasons caused the land in the valley to deteric much that large reductions of assessment were made. T has now recovered largely.

Gumtī—(*Gomatī*; possibly the *Sambos* of Arrian).— which rises (28° 35′ N., 80° 7′ E.) nearly 20 miles east of in the United Provinces District of that name. For ab miles the river-bed is a mere depression, which dries up in weather. A small stream, the Gaihai, then joins it, and low channel is formed, while after it receives the Jo miles from its source), the Gumtī runs in a regular stream never dries up. A few miles further down the Pawāyān tramway crosses by a bridge 250 feet long, and the Shāh Kheri road by a bridge 210 feet long. The river

sluggishly through the Shāhjahānpur and Kheri Districts, with a winding course and a network of channels, choked with weeds and aquatic plants. Below Muhamdī it changes its character, and has a well-defined channel 100 to 200 feet wide, with banks increasing in height to 60 feet at Lucknow, 180 miles from the source. Two considerable affluents, the Kathnā (90 miles long) and Sarāyān (120 miles) join the Gumtī in Sītāpur. At Lucknow it is crossed by two railway bridges, and one stone, one brick and two iron road bridges. From Lucknow its course winds much through the Bāra Bankī, Sultānpur, and Jaunpur Districts, the distance by river from Lucknow to Jaunpur being almost double the distance in a direct line. The breadth of the river increases from 120 to 200 feet in Lucknow and Bāra Bankī, to 200 to 400 in Sultānpur, and to 400 to 600 in Jaunpur. At Jaunpur it is crossed by a magnificent stone bridge, 654 feet long, built at the end of the 16th century, and also by a railway bridge. Below Jaunpur the Sai, a large river which runs parallel to the Gumtī for over 350 miles, joins it at mile 433. From this point the river flows through the Jaunpur and Benares Districts and joins the Ganges at Saidpur in Ghāzīpur District, after a total course of nearly 500 miles. The Gumtī with its tributaries drains about 7,500 square miles, and is especially liable to severe floods, causing much damage. A careful survey of the river was made after the flood of 1894. It then appeared that the floods are entirely due to excessive rainfall in the catchment area, and not to spill from other rivers. At Lucknow the fall is only nine inches per mile and at Jaunpur only six inches, so that flood water cannot be carried off fast enough. After heavy rain in September 1894, the river rose at Lucknow to a height of twenty-two feet above the ordinary low water level. There is a tradition that in 1774 the Gumtī rose so high at Jaunpur that boats sailed over the bridge, the parapet of which is 27 feet above low water level. In 1871 the water rose there to a height of nine feet above the parapet; 4,000 houses were destroyed in the city, and nearly 9,000 in 250 villages in the District. In September, 1894, the river was 27 feet above low water level and 1,378 houses in the city were partly or completely destroyed. The Gumtī is navigable as far up as Muhamdī, but traffic is not very considerable. Grain, fuel, and thatching-grass are carried

down-stream and stone is taken up. It is not used for irrigation.

Sai.—A river rising in the Hardoī District of Oudh between the Gumtī and Ganges (27° 46′ N., 80° 9′ E.). It flows in a tortuous south-easterly direction through the Oudh Districts of Unao, Rāe Barelī, and Partābgarh, and enters the Province of Agra in Jaunpur District, falling into the GUMTI ten miles beyond Jaunpur town after a course of over 350 miles. In the rains small boats can pass up as far as Rāe Barelī town. The drainage falling into the Sai is chiefly that from the north, and its bed is usually too deep to afford irrigation.

* **Tons Southern** (*Tamasā*).—A river rising in the Kaimur range in Maihar State, Central India (24° N., 80° 25′ E.). Its nominal source is the Tamasā Kund, a tank standing on the Kaimur Hills, 2,000 feet above the sea. From this point the river follows a general north-easterly course for about 120 miles, and after traversing the rough hilly country round Maihar, flows through the level fertile country of Rewah. Here it is joined by the Satnā, and 40 miles lower down it reaches the edge of the plateau at Purwā, where with its affluents, the Bīhar and Chachaiā, it forms a magnificent series of waterfalls. The greatest fall is that of the Bīhar, which dashes over the precipice in a great sheet of water, 600 feet broad and 370 high. The fall of the Tons itself has a descent of only about 200 feet. The Tons then flows through a level plain, spreading into a wide stream with frequent long deep reaches, and enters the United Provinces at Deora in the Allahābād District. After a north-easterly course of about 44 miles, it joins the Ganges 19 miles below the junction of the latter with the Jumna, its total length being 165 miles. The principal tributary is the Belan, which rises in Mirzāpur and drains the central plateau of that District. After a picturesque westerly course of 95 miles, including a waterfall 100 feet in height, the Belan enters Allahābād and traverses that District and Rewah State for 40 miles, joining the Tons, where it crosses the border between Rewah and Allahābād. A bridge 1,206 feet long with seven spans carries the East Indian Railway over the Tons near its junction with the Ganges. Navigation by boats of any size is confined to the

* To appear also in the Central India Provincial volume.—*R. B.*

sins by a saint who collected water from all the sacred streams of the world and washed him. The bath took place at the spot where the river issues, and this bears for ever the taint of his guilt. The other legend makes Trisanka attempt to ascend into heaven by dint of long austerities. Half way he was suspended head downwards by the gods, and a poisonous moisture exudes from his mouth into the river. The real cause of its ill-fame is probably the fact that the Karamnāsā was the boundary of the eastern kingdom of Magadha, which is treated with contempt in Sanskrit literature because its inhabitants were not Aryans. Hindus living on its banks, except those of the highest castes, are not defiled by it, and carry more scrupulous travellers over it for a consideration. There is no regular irrigation from the Karamnāsā.

* **Son**—(Sanskrit *Suvarna* or gold; also called *Hiranya-Vāha* or *Hiranya-Vāhu*; the *Sonos* of Arrian; also identified with the *Erannoboas* of Arrian). A large river, which, flowing from the Amarkantak highlands of Central India (22° 42′ N., 82° 4′ E.) first north and then east, joins the GANGES ten miles above Dinapore, after a course of about 487 miles.

It rises near the Narbadā at Amarkantak in the Maikal range, the hill on which its nominal source is located being called Son-bhadra or more commonly Son-mundā. Its waters possess great sanctity, the performance of *sandhyā* on its banks ensuring absolution and the attainment of heaven even to the slayer of a Brāhman. Legends about the stream are numerous, one of the most picturesque assigning the origin of the Son and Narbadā to two tears dropped by Brahmā, one on either side of the Amarkantak range. The Son is frequently mentioned in Hindu literature, in the Rāmāyanas of Vālmīki and Tulsi Dās, the Bhāgwat and other works. Soon after leaving its source the river falls in a cascade over the edge of the Amarkantak plateau amid the most picturesque surroundings, and flows through the Bilāspur District of the Central Provinces till it enters Rewah State at 32° 6′ N. and 81° 59′ E. From this point, till it leaves the Central India Agency after a course of 288 miles, the stream flows through a maze of valley and hill, for the most part through

* To appear also in the Central Provinces, Central India and Bengal Provincial volumes.—*R. B.*

narrow rocky channels, but expanding in favourable spots into magnificent deep broad reaches locally called Dahār, the favourite resorts of the fisher caste.

Following at first a northerly course, near its junction with the Mahānadī river at Sarsi it meets the bold scarp of the KAIMŪR Range and is turned in a north-easterly direction, finally leaving the Agency 5 miles east of Deorā villages. In Central India three other affluents of importance are received, one on the left bank, the Johillā, which also rises at Amarkantak, and enters at Barwālū village, and two which join it on the right bank, the Banās at 24° 17′ N. and 81° 31′ E, and the Gopat near Bardī.

In the United Provinces the Son flows for about 55 miles from west to east across the Mirzāpur District, in a deep valley never more than eight or nine miles broad, often narrowing to a gorge, and receives from the south two tributaries, the Rehand and the Kanhar. In the dry season it is shallow, but rapid, varies in breadth from 60 to 100 yards, and is easily fordable.

The Son enters Bengal in 24° 31′ N. and 83° 24′ E., and flows in a north-westerly direction separating the District of Shāhābād from Palāmau, Gayā, and Patna till, after a course within Bengal of 144 miles, it falls into the Ganges in 25° 40′ N. and 84° 59′ E. So far as regards navigation, its stream is mainly used for floating down large rafts of bamboos and a little timber. In the rainy season, native boats of large tonnage occasionally proceed for a short distance up stream; but navigation is then rendered dangerous by the extraordinary violence of the flood, and during the rest of the year becomes impossible, owing to the small depth of water. The great irrigation system known as the SON CANALS is served by the river, the water being distributed west to the Shāhābād District and east to the Gayā and Patna Districts from an anicut constructed at DEHRI. In the lower portion of its course the Son is marked by several striking characteristics. Its bed is enormously wide, in some places stretching for three miles from bank to bank. During the greater part of the year this broad channel is merely a waste of drifting sand, with an insignificant stream that is nearly

The discharge of water at this time is estimated to fall as low as 620 cubic feet per second. But in the rainy season, and especially just after a storm has burst on the plateau of Central India, the river rises with incredible rapidity. The entire rainfall of an area of about 21,300 square miles requires to find an outlet by this channel, which frequently proves unable to carry off the total flood discharge, calculated at 830,000 cubic feet per second. These heavy floods are of short duration, seldom lasting for more than four days; but in recent years they have wrought much destruction in the low-lying plains of Shāhābād. Near the site of the great dam at Dehrī the Son is crossed by the Grand Trunk Road on a *stone causeway; and lower down*, near Koelwār, the East Indian Railway has been carried across on a lattice girder bridge. This bridge, begun for a single line of rails in 1855, and finally completed for a double line in 1870, has a total length of 4,199 feet from back to back of the abutments. The Son possesses historical interest as being probably identical with the *Erannoboas* of Greek geographers, which is thought to be a corruption of *Hiranyabāhu*, or "the golden-armed" (a title of Siva), a name which the Son anciently bore. The old town of Pālibothrā or Pātaliputra corresponding to the modern PATNA was situated at the confluence of the *Erannoboas* and the Ganges, and, in addition, we know that the junction of the Son with the Ganges has been gradually receding westwards. Old channels of the Son have been found between Bankipore and Dinapore, and even below the present site of Patna. In the Bengal Atlas of 1772 the junction is marked near Maner, and it would seem to have been at the same spot in the 17th century; it is now (1904) about 10 miles higher up the Ganges.

* **Jumna** (*Yamuna*; the *Diamouna* of Ptolemy, *Jomanes* of Pliny, and *Jobares* of Arrian).—A great river of the Punjab and the United Provinces. Rising in the Tehrī State (31° 1′ N., 78° 27′ E.), eight miles west of the lofty mountain Bandarpūnch (20,731 feet), it flows past the sacred shrine of Jamnotrī, and winds through the outer Himālayas for 80 miles, receiving a few small streams. At the point where it flows into the Dūn, the valley between the Himālayas and the Siwāliks,

* To appear also in the Punjab Provincial volume.—*R. B.*

it receives the TONS, which is then the larger stream Its course now runs south-west for 22 miles, dividing the Kiarda Dun (Punjab) from Dehra Dun (United Provinces), two large affluents, the Giri from Sirmur on the west and the Asan from Dehra on the east, join it here The Jumna pierces the Siwaliks 95 miles from its source, at Khara, and divides the Ambala and Karnal Districts of the Punjab from Saharanpur and Muzaffarnagar in the United Provinces It is a large river at Faizabad and gives off the WESTERN and EASTERN JUMNA CANALS Near Bidhauli in Muzaffarnagar District it turns due south, and runs in that direction for 80 miles, dividing the Meerut District from the Punjab, till it reaches Delhi Ten miles from Delhi it gives off the ÁGRA CANAL from its western bank at Okhla It then turns south east for 27 miles to Dankaur, when it again resumes a southerly course In this portion it receives on the east the Kotha Nadi and the HINDAN, and on the west the Sabi Nadi Below Delhi the river forms the boundary between the Gurgaon District in the Punjab and Bulandshahr and Aligarh in the United Provinces It then enters the Muttra District and crossing it, turns east till the borders of the Agra District are reached Throughout its course in this District, where it receives the UTANGAN, and in Etawah, the river winds in a remarkable manner, its bed lying deep between high banks which are furrowed by steep ravines Just before the Jalaun District is reached the great river CHAMBAL from Rajputana joins it, and the Jumna then divides the three Districts of Cawnpore, Fatehpur, and Allahabad from Jalaun, Hamirpur, and Banda In Cawnpore District the Sengar, and in Fatehpur the Nun and Rind, flow into it, close to Hamirpur it receives the BETWA and in the Banda District the KEN joins it It finally falls into the GANGES below Allahabad, 860 miles from its source

The Jumna, after issuing from the hills, has a longer course in the United Provinces than the Ganges, but is not so large or important a stream, and does not carry as much water as is required by the canals taken from it The supply is, however, increased from the Ganges by means of the cut into the HINDAN, and the Irrigation Commission, 1901, has recently proposed to make more water from the Ganges available, b-

increasing the supply of the Lower Ganges Canal through a cut from the SARDA. The Jumna supplies drinking water to the cities of Agra and Allahābād and has a peculiar bactericidal property when fresh. It is crossed by railway bridges near Sarsāwa in Sahāranpur, and at Delhi, Muttra, Agra, Kālpī (2,626 feet), and Allahābād (3,230 feet). The width of water surface in the dry season varies from 2,600 feet at Okhla and 1,500 feet at Kālpī to 2,200 feet at Allahābād. The discharge in flood at Okhla is about 41,000 cubic feet per second, and this dwindles away to less than 200 in the dry season. The river drains a total area of about 118,000 square miles.

The trade on the Jumna was formerly of some importance, and large sums were spent in clearing away reefs of *kankar* (nodular limestone) and conglomerate in the Etāwah District. Before the opening of the East Indian Railway, much cotton grown in Bundelkhand was sent down the river from Kālpī. At present timber is carried down the upper portion, and stone and grain are carried in the lower courses. The principal towns on or near its bank in the United Provinces are Bāghpat, Māt, Brindāban, Muttra, Mahāban, Agra, Fīrozābād, Batesar, Etāwah, Kālpī, Hamīrpur, and Allahābād and in the Punjab, Delhi.

Tons Northern.—A river in Tehrī State and Dehra Dūn District, United Provinces. It rises north of the Jamnotrī peaks (31° 5′ N., 78° 31′ E.), a few miles away from the sources of the Jumna, and first issues as a stream called Sūpin, 31 feet wide and knee-deep, from a snow-bed 12,784 feet above sea-level. After a westerly course of 30 miles in a series of cascades, it receives the waters of the Rūpin, a furiously rapid torrent, and from this point the united stream is called Tons. Nineteen miles lower down it is joined by the Pābar, and the river then forms the boundary between JAUNSAR BAWAR in the Dehra Dūn District and the Native States of Jubbal and Sirmūr in the Punjab. Its course here is tortuous, but generally southerly, and after receiving the Shalwī, a considerable stream, it joins the JUMNA, after a total course of 100 miles, at an elevation of 1,686 feet above sea-level. The volume of the Tons at the confluence is greater than that of the Jumna, so that it may be properly regarded as the principal head-water of that river. Its average fall is 110 feet per mile, and it is thus of no use for navigation or irrigation.

Hindan (also called Chhaja in its upper course).—A river of the United Provinces rising in the southern slopes of the Siwāliks in the Sahāranpur District (30° 7′ N., 77° 47′ E.) and draining the central portions of the Sahāranpur, Muzaffarnagar, and Meerut Districts. It flows generally towards the south-west, and falls into the JUMNA after a course of 160 miles, a few miles after entering the north-western corner of Bulandshahr. The KALI NADI WEST is the chief tributary. Its water is nowhere used for irrigation, but part of its channel forms an important link between the Ganges and Jumna rivers. Thus water can be passed into the Hindan from the UPPER GANGES CANAL, and thence, by means of a cut made from a point close to Ghāziābād in 1877, into the Jumna above Okhla, increasing the supply of water for the AGRA CANAL. This cut was made wider in 1884 and further improved in 1901, and it is now navigable.

Kālī Nadī West.—A tributary of the HINDAN, about 70 miles long, rising in the Sahāranpur District of the United Provinces (30° N., 77° 45′ E.), 16 miles from the Siwāliks, and flowing south-west and south through Sahāranpur and Muzaffarnagar, between the Hindan and Ganges Canal. Its junction with the Hindan is at the point where the latter river enters Meerut District.

* **Chambal.**—River of Central India and Rājputāna and one of the chief tributaries of the Jumna. It rises in the Indore State about nine miles south-west of Mhow cantonment in the Janapao hill, 2,019 feet above the sea, in 22° 27′ N. and 75° 31′ E. Thence it flows down the northern slopes of the Vindhyan range, with a general northward course through Gwalior, Indore, and Sitāmau States and skirts Jhālāwār, entering Rājputāna at Chaurāsgarh 195 miles from its source. It receives many tributaries in Central India, the chief being the Chamblā and the SIPRA, both of which rise in the Vindhyan mountains. In Rājputāna the Chambal breaks through a scarp of the Patār plateau, the bed getting narrower and narrower, and after a winding course of 30 miles it receives the Bāmani at BHAINSRORGARH. Some three miles above the latter place are the well-known cascades or *chūlis*, the chief

* To appear also in the Central India and Rāj[illegible]

of which has an estimated fall of 60 feet. Here whirlpools are formed in huge perpendicular caverns, 30 and 40 feet in depth, between some of which there is communication under ground. Continuing north-east the river forms for a short distance the boundary between BUNDI and KOTAH and near Kotah city it is a broad sluggish stream, very blue in colour, flowing between magnificent overhanging cliffs and rocks rising sheer out of the water, covered with trees and thick brushwood and famous as big game preserves. At the city there is a pontoon bridge, replaced by a ferry in the rains in consequence of the high and sudden floods to which the river is subject. Lower down, the Chambal again forms the boundary between Kotah and Būndi, and on its left bank is the interesting old village of KESHORAI PATAN. The character of the scenery now alters completely. Above Kotah the neighbouring country is all precipitous rock with wild glens and gullies and thick tangled overhanging brushwood, but below Pātan there are gently sloping banks, occasionally very picturesquely wooded and much intersected by channels. Continuing north-east the river is joined by the KALI SIND from the south and the Mej from the west, while lower down, where the frontiers of JAIPUR, Kotah, and Gwalior meet, the PARBATI flows into it. The Chambal then forms the boundary between Jaipur, KARAULI, and DHOLPUR on the one side and Gwalior on the other. From Jaipur territory it receives the BANAS and flowing under an irregular lofty wall of rock along the whole southern border of Karauli, it emerges into the open country south of Dholpur town. Here it is in the dry weather a sluggish stream 300 yards wide and 170 feet below the level of the surrounding country; but in the rains it generally rises about 70 feet and in extreme floods nearly 100 feet above summer level. The breadth then increases to more than 1,000 yards and the stream runs at the rate of 5½ miles an hour. The banks are intersected by a labyrinth of ravines, some of which are 90 feet deep and run back inland for a distance of three miles. At Rājghāt, three miles south of Dholpur town on the high road between Agra and Bombay, a bridge of boats is kept up between November and June, while a large ferry boat plies during the rest of the year. A little to the east of this *ghāt*, the river is crossed by a fine railway

bridge of 13 spans. After forming the boundary between Gwalior and the Agra and Etāwah Districts in the United Provinces, the Chambal crosses the latter, and falls into the Jumna 25 miles south-west of Etāwah town. After the two rivers have united, the crystal current of the Chambal may be distinguished for some distance from the muddy waters of the main stream.

The total length of the river is about 650 miles, though the distance from its source to its junction with the Jumna is only 330 miles in a straight line. The Chambal is identified with the Charmwati of Sanskrit writers.

* **Bānganga (or Utangan).**—A river rising in Jaipur territory near BAIRAT (27° 25′ N. and 76° 12′ E.). It flows, generally in an easterly direction, through the States of Jaipur, Bharatpur, and Dholpur and the district of Agra in the United Provinces and after a course of about 235 miles joins the Jumna ten miles east of Fatehābād in the Agra District. The word Bānganga (Vānaganga) means literally "arrow-ganges." The story goes that the five Pāndava brothers, on going into hiding at Bairāt (Vairāta) concealed their sacred weapons in a tree, and swore that before using them again they would purify them by washing them in the Ganges. One of the brothers, Arjun, had occasion to use his weapons against the Kurus. The Ganges was far off so he shot an arrow into the ground and immediately a spring of the sacred Ganges water issued, which became the source of the Bānganga. Between 1848 and 1856 small irrigation works were made in the Agra District and Bharatpur State; but these had the effect of diverting the course of the Utangan, and did so much damage that in 1864 the works in Agra were totally closed, and in [illegible] operations were undertaken in Bharatpur to bring back the river to its old course.

Near the village of Gopālgarh in the [illegible] hills, about 25 miles below the source, the waters of the river are impounded by a dam 80 feet in height and form the [illegible] reservoir, the most important irrigation work in the Jaipur State. This lake when full covers an area of six square miles and can under exceptional circumstances contain 2,000 million cubic feet of water, but ordinarily about half this quantity of water [illegible]

* To appear also in the [illegible] Provincial volume [illegible]

sufficient to irrigate more than 13,000 acres, is impounded. The project is practically complete and has cost nearly five lakhs of rupees. Some smaller works have been carried out in the Bharatpur State. Rāmgarh is said to have once been the capital of the Jaipur State under the name of Māshi; there is a temple in the gorge called Jumwa Devī which is visited by the Chiefs of Jaipur on their accession to the *gadi*. Here they are shaved, the process being part of the ceremony connected with the accession. The stream in the gorge near Rāmgarh is perennial, but lower down the bed dries up except during the rains. The banks are for the most part low and, in Bharatpur, are covered, often to a distance of two or three miles from the stream, with a dense growth of jungle grass and tamarisk. In Dholpur territory ravines run inland from either bank, sometimes for a distance of two miles or more. Where it first touches the United Provinces, the river is a mountain torrent with a bed of sand mixed with gravel. It drains a large area, but is nearly dry except in the rains. The principal tributaries are the Gambhīr, Kawār or Koela and Pārvatī on the right bank, and the Khārī on the left. The Utangan and Khārī often bring down disastrous floods. In Bharatpur the violence of these has given the river the name of Ghora-pachhār or overthrower of horses.—(*Papers relating to the irrigation of the Agra District from the Utangan river*, Roorkee, 1853-54.)

* **Betwā** (*Vetravatī* or containing canes.)—A large river in Bundelkhand, whose source is in 22° 55′ N. and 77° 43′ E. It rises in the Bhopāl State at the village of Kumrī, 23° 2′ N. and 77° 6′ E., and flows in a generally north-eastern direction; after a course of about 50 miles in Bhopāl it enters Gwalior territory near Bhīlsa. It first touches the United Provinces in the south-west corner of the Lalitpur *tahsīl* of the Jhānsi District, and flows north and north-east, at first forming the boundary between that District and the Gwalior State. It then crosses the District obliquely, traverses part of the Orchhā State, and flows for some distance between Jālaun on the north and Jhānsi and Hamīrpur on the south, meeting the Jumna, after a course of about 190 miles in the United Provinces, close to the town of

* To be reproduced in the Central India Provincial volume.—*R. B.*

Hamirpur In the upper part of its course the Betwa flows over the Vindhya sandstone, crossed by veins of quartz which break it up into beautiful cascades At DEOGARH it flows in a magnificent sweep below a steep sandstone cliff on the eastern bank, surmounted by a ruined fort Below Jhansi its bed is granite for about 16 miles till it reaches the alluvial plain It is nowhere navigable, and its crossings are often dangerous There are railway bridges at Barkhera on the Bhopal-Hoshangabad section of the Great Indian Peninsula, at Sanchi, on the Bhopal Jhansi section, at Mangaoli on the Bini-Guna line, and near Orchha on the Manikpur-Jhansi line Road bridges cross it at Bhilsa and at Orchha At Paricha, 15 miles from Jhansi, the river has been dammed to supply the Betwa Canal, a protective work which serves part of Jhansi, Jalaun and Hamirpur, and was found of great value in 1896 97 Proposals are now (1904) under consideration for damming the river at other places, so as to increase the amount of water available, and one dam is now (1905) almost completed The chief tributaries are the Bes in Central India, Jamni and DHASAN in Jhansi, and the Pawan in Hamirpur The river is mentioned in the Puranas, and also in the Meghaduta of Kalidasa According to tradition, the Pandavas fought the king of Videsa (Bhilsa) on its banks

* **Dhasan** *(Dasharna*, possibly the *Dasaron* of Ptolemy) —River in Bundelkhand, it rises in the Bhopal State (23° 32′ N, 78° 30′ E) amongst the Vindhyas, and after crossing the Saugor District of the Central Provinces for about 60 miles, it first touches the United Provinces in the extreme south of the Lalitpur *tahsil* in Jhansi District, which it divides from Saugor for about 30 miles It then crosses several of the Bundelkhand States, and finally forms the boundary between Jhansi and Hamirpur for nearly 70 miles till its junction with the BETWA at Chandwari on the border of Jalaun District The bed of the Dhasan is rocky in Saugor and Lalitpur, and at intervals after it first enters Jhansi and Hamirpur, but is then generally sandy, with nullahs and ravines running into it Except during the rains it is easily fordable A scheme has been sanctioned for the provision of irrigation in the west of Hamirpur District by damming this river and forming a reservoir

* To be reproduced in the Central India Provincial volume —*R. B*

* **Ken** (or Kayān; Skt. *Karnāvati; the Kainas* of Arrian).—A river in Bundelkhand. It rises in the north-western slopes of the Kaimur Range (23° 54′ N., 80° 10′ E.), and flowing north-east through Damoh and Pannā enters the Bāndā District of the United Provinces near Bilharkā. After a course of more than 100 miles along the border of and through Bāndā, it joins the JUMNA near Chillā, on the road from Bāndā to Fatehpur, 230 miles from its source. The river flows in a deep, well-defined bed, and is navigable for small boats as far as Bāndā town; but there is not much traffic. At Bāndā the bed is sandy, but pebbles and fragments of quartz and other rocks are found in it, and are polished and made into ornaments locally. Above Bāndā the bed becomes more rocky, and the scenery near Kharaunī is singularly beautiful. A canal taking off from the river near Bariārpur in the Ajaigarh State (Central India) is now (1905) under construction. At present it is designed to irrigate only a part of the Bāndā District, *viz.* the area between the Ken and Bāgain, of which it will command about half, *viz.* 374,000 acres. The reservoir to be formed in connection with this project will impound about 182 million cubic feet of water in the valley of the river.

Sārdā.—The name given to a part of a river system flowing from the Himālayas through north-western Oudh. Two streams, the Kuthi Yānkti and Kālāpānī, rising in the lofty Pānch Chūlhī mountains in the north-east corner of Kumaun close to the Tibet frontier, unite after a few miles to form the Kālī river or Kālī Gangā, which divides Nepāl from Kumaun. At a distance of 106 miles from its source the Kālī receives the Sarjū or Rāmgangā (east) at Pacheswar. The Sarjū and its tributary, the Rāmgangā (east), rise in a lofty range leading south from the peak of Nandī Kot, and unite at Rāmeswar, from which point the combined stream is called indifferently by either name. From the junction at Pacheswar the name Kālī is gradually lost and the river is known as Sarjū or as Sārdā. At Barmdeo the waters descend on the plains in a series of rapids, the course to this point being that of a regular mountain stream over a steep rocky bed. The Sārdā now divides into several beds which reunite again after a few miles at Mundiā *ghāt* (ferry) where the last

* To be reproduced in the Central India Provincial volume.—*R. B.*

rapids occur, and the bed ceases to be composed of boulders and shingle From this point the river forms the boundary between Nepal and the Pilibhit District of Agra for a short distance, and then cuts across and enters Kheri District In Pilibhit it is joined on the right bank by the Chauka, which is now a river of the plains, rising in the Tarai, but may have been originally formed as an old bed of the Sarda The river is at first called both Sarda and Chauka in Kheri, and its description is rendered difficult by the many changes which have taken place in its course Four distinct beds may be recognised, which are, from south to north, the Ul, the Sarda or Chauka, the Dahawar, and the Suheli The first of these is a small stream which joins the Chauka again The name Sarda is occasionally applied to the second branch in its lower course through Sitapur, but the stream is more commonly called Chauka After a long meandering course it falls into the GOGRA at Bahramghat, this channel appears to have been the principal bed from the middle of the 18th to the middle of the 19th centuries The largest volume of water is, however, at present brought down by the Dahawar, which leaves the Chauka in *pargana* Dhaurahra The Suheli brings down little water and joins the KAURIALA (afterwards called the Gogra)

Chauka—River in Oudh this is one of the branches into which the SARDA splits up in the Kheri District. Its channel now contains little water, but has a long course through Kheri, Sitapur, and Bara Banki Districts, and joins the GOGRA near Bahramghat The name is also applied to an old bed of the Sarda which now joins that river in Pilibhit District

Kauriala (*also called Karnali*)—*River*, rising in Tibet, not far from one of the sources of the Sutlej in 30° 40′ N and 80° 48′ E After leaving Tibet by the Takla Khar or Yari Pass, it flows through Nepal, generally in a south-easterly direction, till it emerges from the lower range of the Himalayas, through a deep picturesque gorge known as Shisha Pani (glass waters) The stream here is about 300 yards broad and of great depth, with a slow current closely shut in by precipitous mountains 2,500 feet high A little below Shisha Pani the channel widens, with a steeper and rockier descent, causing magnificent rapids nearly half a mile broad Lower down the river divides into two, the western branch retaining the name of Kauriala or Karnali,

the eastern being called the GIRWA. Formerly the latter was a mere stream, but its volume has gradually increased till it is now considerably larger than that of the Kauriāla. They are both rapid rivers, with pebbly beds and fords which an elephant can generally cross without difficulty. Eighteen miles from its point of exit from the hills the Kauriāla enters British territory, at the point where it receives the Mohan, and marks the boundary between the Oudh Districts of Kherī and Bahraich. It now receives on the east bank its former offshoot, the Girwā, and on the west the Suhelī, the Dahāwar, and the Chaukā, all branches of the SARDA river. From the point of confluence with the Chaukā the united rivers become the GOGRA, which ultimately falls into the Ganges on its left bank, a little above Dinapore. The Kauriāla is navigable by large boats of about 17 tons burthen beyond the limits of British territory. The principal river trade is the export of grain, and of timber, ginger, pepper, *ghī*, and catechu from Nepāl. Gold washing is carried on by a caste called after their occupation Sonāhīs. The river abounds in fish.

Girwā.—A branch of the KAURIALA river in Nepāl and Oudh. The Kauriālā bursts through a gorge in the Himālayas called Shīshā Pānī, or "glass water," and a little below this point divides into two, the western branch retaining the name Kauriāla, while the eastern is called Girwā. The latter is now the more considerable, though it was formerly smaller than the other. In its upper course the Girwā is a rapid stream with a pebbly bed; but it becomes navigable at Dhanaura before entering British territory, and grain, timber, ginger, pepper, and *ghī* are carried down it from Nepāl. It reunites with the Kauriāla a few miles below Bharthāpur in the Bahraich District.

Gogra.—[*Ghāgra*; Skt. *gharghara* (rattling or laughter); other names, Sarjū or Sarayū (the *Sarabos* of Ptolemy), and in the lower part of its course Deohā or Dehwā]. This is the great river of Oudh. Rising in Tibet (30° 40′ N. and 80° 48′ E.), it flows through Nepāl under the name Karnāli or KAURIALA, piercing the Himālayas at Shīshā Pānī, and shortly after throws off a branch to the east called the GIRWA, which now brings down the main stream. The Kauriāla enters British territory between Kherī and Bahraich, and forms the boundary between those Districts. It receives the Girwā not many miles from the

border, and just below this the Suhelī, one of the three branches of the SARDA. The main branch of the Sārdā, called Dahāwar, joins it at Mallanpur, a few miles below Katai Ghāt, near which place *the* Sarjū *is received.* The Sarjū formerly joined the Gogra in Gondā, but early in the 19th century a European timber merchant diverted its course into an old bed. At Bahrāmghāt a third branch of the Sārdā, named Chaukā, adds to its volume, and from this point the united stream is regularly called Gogrā or Sarjū, though these names are sometimes applied at Mallanpur. From the name Sarjū is derived the name of an important tribe of Brāhmans called Sarwaria, a contraction of Sarjūpāria, meaning those who dwell beyond (*i.e.* on the north side of) the Sarjū. The Gogrā now turns east and divides the Gondā District which lies on its north bank from Bāra Bankī and Fyzābād on the south. After passing Ajodhyā city it separates Bastī and Gorakhpur Districts from Fyzābād, and then from Azamgarh and Balliā, and receives the RAPTI and LITTLE GANDAK from the north. After being joined by the Chaukā it receives little drainage from the right bank, and is in fact higher than the valley of the Gumtī which lies south of it. In Azamgarh a branch is given off, called the Chhotī (lesser) Sarjū, which was apparently an old bed of the river, and joins the Ganges after *a long course through Azamgarh, Ghāzīpur, and Balliā. East* of the Gorakhpur District the Gogra forms the boundary between the Sāran District in Bengal and the Balliā District in the United Provinces for about 40 miles. It falls into the Ganges in 25° 44′ N. and 84° 42′ E.

The Kauriāla and Girwā are both navigable for a short distance before entering British territory, and until the opening of the Bengal and North-Western Railway, within the last twenty years, trade on the Gogra was of great importance. Many years ago a pilot service existed for a short time, and steamers plied as far as Bahrāmghāt in Bāra Bankī District. The trade is still considerable, and large quantities of timber, grain, and spices come down from Nepāl, or are carried in the lower reaches. At Bahrāmghāt saw-mills used to be worked by the Forest department, but have recently been sold. The most important place on the banks of the river is Fyzābād with Ajodhyā, the sacred birth-place of Rāma, adjoining it. Tāndā in Fy-

Barhaj in Gorakhpur are also towns of some size, engaged in trade. The chief mart on the banks of the Gogra in Bengal is Revelganj in the Sāran District. The trade of Nawābganj in Gondā, which stands some miles from the river, is now largely carried by rail. River steamers from Patna ply as far as Ajodhyā, calling at many places and competing with the railways both for goods and passenger traffic.

The river is spanned by two fine railway bridges, the Elgin Bridge near Bahrāmghāt, 3,695 feet long, and a bridge at Turtīpār 3,912 feet. The variability of its course is shown by the method of construction of the first-named bridge, which was built on dry land, the river being then trained under it. The height above sea level is 350 feet at Bahrāmghāt and 193 feet at Turtīpār; and the flood discharges are 877,000 and 1,111,000 cubic feet per second respectively. At Fyzābād a bridge of boats is maintained except during the rains, when a steamer plies. Another important ferry is at Dohrīghāt on the road from Azamgarh to Gorakhpur.

Rāptī.—[Identified by Lassen with the *Solomatis* of Arrian = Skt. *Sarāvatī*; by Pargiter with the *Sadānīra* (ever-flowing) of the epics; also called *Irāvatī* (refreshing).] A river which rises in the lower ranges of Nepāl (27° 49′ N., 82° 44′ E.), and joins the GOGRA in the Gorakhpur District of the United Provinces. Its course is first south and then north-west and west, after which it turns south again and crosses the border of Oudh in the Bahraich District. It then flows south-east or south through Bahraich, Gondā, Bastī, and Gorakhpur Districts with a total course of about 400 miles. Its wide bed is confined within high banks, but the actual channel shifts considerably. Floods are not uncommon, but do little damage, if they subside in time for spring crops to be sown, as the silt deposited acts as a fertilizer. The feeders of this river are chiefly small rivers rising in the Tarai north of its course, the largest being the Dhamela, joined by the Ghūnghī, and the Rohin, in Gorakhpur. In Gondā and Bastī an old bed of the river, called the Būrhī Rāptī, some miles north of its present course, brings down a considerable amount of water in the rains. The BAKHIRA lake in Bastī District and the Chilwā lake in Gorakhpur drain into it. The Rāptī is navigable for small boats

as far up as Bhingā in Bahraich, and for large ones to the town of Gorakhpur, which stands near its banks. Much timber and grain from Nepāl and the British Districts which it traverses are carried down into the Gogra, and hence into the Ganges; but the traffic has fallen off since the extension of the Bengal and North-Western Railway. The Rāptī is rarely used for irrigation.

Bānganga (Arrow-river).—A hill stream rising in the south of Nepāl (27° 42′ N., 83° 6′ E.) which flows for about 18 miles through the Bastī District and joins the Būrhī Rāptī (old Rāptī) at Kabrahī Ghāt where the road from Bastī through Bānsī to Nepāl crosses the latter river. Timber from Nepāl is floated down this river. Traces of the bed of another river of the same name still exist south of the Rāptī, and the upper course of the Katnehia. A tributary of the Kuwānā in Bastī, which formed one branch of this, is still called Bānganga.—(Cunningham *Archæological Survey Reports, Vol. XXII, page* 4.)

Gandak, Great.—(The article to be reproduced from the Bengal proofs.)

Gandak, Little.—A river which rises in the lower Nepāl hills, and enters the Gorakhpur District of the United Provinces a few miles west of the GREAT GANDAK. It flows from north to south the whole length of Gorakhpur, and joins the GOGRA just within the District of Sāran (Bengal). Except in the rains it has a small stream, not exceeding 60 feet in breadth, and is generally fordable. In 1859 it was proposed to make it into a navigable canal, but the scheme was never carried out. Boats ply in the monsoon as far as Ragarganj in the Padraunā *tahsīl*.

Himālaya Mountains.—The Himālayas, literally "the abode of snow" (from the Sanskrit *hima*, frost and *ālaya*, dwelling-place) comprise a system of stupendous ranges, with some of the loftiest peaks in the world. Arrian, Strabo, and Ptolemy describe them under three names—the *Paropanisus* (*Hindu Kush*), the Imaus or Himaus, and the Hemodas. The two latter names seem to be applied to the western and eastern parts respectively, the sources of the Ganges being taken as the dividing line. Hemodas represents the Sanskrit *Himāvata* (Prakrit *Hemota*) meaning snowy. The Greeks with Alexander styled the mountains the Indian Caucasus.

For 1,500 miles this great mass lies in three great divisions along the northern border of India, at first dipping south-east and then bearing almost due east. A northern chain, broken in the centre, called Muztagh or Karakoram in the west and Gangrī in the east, lies beyond British India. South of this is a central chain starting from Nangā Parbat in Kashmīr. The southern chain lies outside this and contains a series of lofty peaks. The central chain enters the United Provinces in Garhwāl and Almorā and divides them from Tibet. It is crossed by several passes, the principal being Māuā, 18,000 feet, Nitī, 16,570 feet, and Balcha Dhurā in Garhwāl; and Anta Dhurā, 17,270 feet, Lampiya Dhurā, 18,000 feet, and Lipū Lekh, 16,750 feet, in Almorā. From this northern snow-clad* barrier spurs run down to the southern chain, which extends across the whole of the north of the United Provinces from Tehrī State, through Garhwāl and Almorā, into Nepāl. The highest peaks are usually found where these spurs or saddles join the southern range, such as Nanda Devī, 25,661 feet, the highest mountain in any part of British territory; Trisūl, 23,382 feet; Pānch Chūlhī, 22,673 feet; and Nandā Kot, 22,538 feet. While the central range forms a true watershed in the United Provinces, the southern chain is pierced in several places by the larger rivers and their tributaries, rising in considerable glaciers, the most accessible of which is that of the Pindarī. From the southern range more spurs run south, with dividing valleys which carry off the drainage of the southern slopes. Proceeding from the west the largest basin is that of the GANGES, with the valleys of its tributaries, the JUMNA to the west, and the RAMGANGA in the east, which drain the whole of Tehrī, Garhwāl, and the western part of Almorā. Their direction is usually west or south-west till they pierce the outer ranges and *debouch on* the plains. Spurs running down from Nandā Kot and the great mass of mountains known as Pānch Chūlhī divide this system from that of the SARDA, draining the rest of Almorā, and the component streams of this system have an easterly or south-easterly course. Below the lofty ranges the general level

* The line of perpetual snow varies from 15,000 to 16,000 feet on the southern exposures. In the winter snow generally falls at elevations above 5,000 feet, and falls at 2,500 feet were recorded twice in the 19th century.

of the summits falls rapidly, but rarely in the Himālayas within these Provinces is any appreciable area of level ground found either in the form of table-land or valley. Kāli Kumaun and the Baijnāth valley are the most considerable exceptions, and here alone cultivation is possible without terracing. The outermost range of hills has an elevation of 6,000 to 8,000 feet within a few miles from the plains. West of the Ganges a broad valley, called DEHRA DUN, lies south of the Himālayas, stretching up to the SIWALIK hills. East of this river a similar but lower range divides the Pātlī, Patkot, and Kotah Dūns (valley) from the Himālayas, which it joins at Kālādhūngī. Below them is a strip of land called the Bhābar, sloping south and formed of boulders and the larger detritus washed down from the mountains in which the hill streams are swallowed up, to reappear a few miles lower down in the Tarai.

As we ascend from the base of the Himālaya, constant changes are met in the vegetation: tropical plants giving place to temperate forms, which in their turn disappear and are replaced by a distinctly Alpine flora. These changes are due to an increase in elevation and to the decrease in rainfall and humidity, passing from south to north and from east to west. The tropical zone extends to about 5,000 feet and is eminently a forest belt, the principal timber trees being *sāl (Shorea robusta)* and *shīsham* or *sissu (Dalbergia sissoo)*. About 62 species of orchids, both epiphytic and terrestrial, have been found in the United Provinces. Above this is a temperate zone ranging to about 12,000 feet, in which oaks, pines, and tree rhododendra, with an increasing number of western species, are found. European fruit trees and potatoes have been naturalized here very successfully, and tea is cultivated. At about 12,000 feet the forests grow thinner. Birch and willow mixed with dwarf rhododendron and shrubby plants continue for a time, until we reach the open pasture land, richly bedizened in the summer months with brilliant Alpine species. The fauna of the Bhābar and lowest hills include the elephant, tiger, leopard, Indian sloth bear, various kinds of deer, many birds, and numerous reptiles from tiny lizards to immense pythons. Higher up, the Himālayan black bear and the musk-deer are found, and in the extreme north the snow leopard and brown bear.

Flora Faun

On the north the Himālayas contain a vast sequence of fossiliferous sedimentary strata lying in a great elevated basin; while the snowy range is built up of immense sills of massive gneissic rock of acid and granitic composition. The area south of this has not been fully examined; but the characteristic feature is the change from gneissose, granite, and schists to slate, shale, and quartzite, with occasional bands of limestone, and more rarely massive limestone and dolomite formations, all of these being unfossiliferous. The lower Himālayas are remarkable for their steep ravines, the sides of which constantly fall in, occasionally doing much damage. Copper, lead, and iron are found, but no considerable industry has yet been started.

There are several peculiar features about the Hindu inhabitants of the Himālayas. The caste system closely follows the theoretical division into four castes—Brāhmans, Kshattriyas, Vaisyas, and Sūdras; for the Doms, who represent the last, are only just in process of being separated into different castes. Even in the three highest castes the restriction on intermarriage is far less binding than in the plains, and marriages between Kshattriyas and Vaisyas are openly admitted. The Brāhmans and Kshattriyas are each divided into those who, according to tradition, came from the plains and are considered superior, and those called Khas, who are thought to be aboriginal, but are probably Turanian settlers. The superior Kshattriyas claim to have come from Rājputāna, and the claim is supported by linguistic affinities. In the Bhot Mahāls are found settlers from Tibet, some of whom are still Buddhist. A few members of wild jungle tribes, with languages of their own, are occasionally met in the remoter parts on the Nepāl border.

* **Siwālik Hills** (belonging to Siva).—A range of hills running parallel with the Himālayas for about 200 miles from the Beās to the Ganges; a similar formation east of the Ganges separates the Pātlī, Patkot, and Kotah Dūns (valleys) from the outer range of the Himālayas as far as Kālādhūngī, where it merges into them, and is said to reappear still farther east in Nepāl. In the United Provinces the Siwāliks lie between the Jumna and Ganges, and separate Sahāranpur District from Dehra Dūn, while in the Punjab they cross the Sirmūr (Nāhan)

* To be reproduced in the Punjab Provincial volume.—*R. B.*

State, and the Ambala and Hoshiarpur Districts This part of the range is irregular and pierced by several rivers, of which the Ghaggar on the west is the largest West of the Ghaggar the hills run like a wall separating Ambala from the long narrow valley of the Sirsa river, Nalagarh State, until they are cut through by the Sutlej at Rupar Thence the range runs with a more northerly trend through the Hoshiarpur District, where it terminates near the Beas valley in a mass of undulating hills Beyond the Sutlej there is merely a broad table land, at first enclosed by sandy hillocks, but finally spreading into minor spurs The southern face, in the United Provinces, rises abruptly from the plains and is scored by the bare stony beds of the watercourses which rush down in the rains On the northern side is a more gentle descent into the elevated valley of Dehra Dun which separates this range from the Himalayas The greatest height does not exceed 3 500 feet, but the range is about 10 miles broad A road from Saharanpur to Dehra crosses these hills by the Mohan Pass, but is not of much importance now as there is railway communication through the eastern termination near the Ganges Geologically the Siwaliks are separated from the outer Himalayas by a continuous reversed fault They contain tertiary strata consisting of fresh water deposits celebrated for the fossil remains found in them and described by Falconer and Cautley The lower hills are thickly clothed with *sal (Shorea robusta)* and *sain (Terminalia tomentosa)*, while on the higher peaks a cooler climate allows pines to flourish Wild elephants are found and also tigers, sloth bears, leopards, hyænas, various kinds of deer, and pigs The term Siwalik has been applied by Muhammadan writers to the area lying south of the hills as far as Hansi, and also to the Himalayas —(*Fauna Antiqua Sivalensis*, Falconer and Cautley, *London*, 1846—1960)

* **Vindhya Hills** (*Ouindion* of Ptolemy) —A series of hills separating the Gangetic basin from the Deccan, and forming a well marked chain across the centre of India. Th[illegible] was formerly used in an indefinite [illegible] include th[illegible] hills south of the Narbada, [illegible] ed to th[illegible]

* To be reproduced in C[illegible]

north of that river. The Vindhyas do not form a range of hills in the proper geological sense of the term, that is, possessing a definite axis of elevation or lying along an anticlinal or synclinal ridge. The range to the north of the Narbadā, and its eastern continuation the Kaimur to the north of the Son valley, are merely the southern scarps of the plateau comprising the country known as Mālwā and Bundelkhand. The features of the Vindhyas are due to sub-ærial denudation and the hills constitute a dividing line left undenuded between different drainage areas. From a geographical point of view the Vindhyan range may be regarded as extending from Jobat (22° 27′ N. and 74° 35′ E.) in Gujarāt on the west to Sasarām (24° 57′ N. and 84° 2′ E.) in the south-western corner of Bihār on the east with a total length of nearly 700 miles. Throughout the whole length as thus defined the range constitutes the southern escarpment of a plateau. The Rājmahāl hills extending from Sasarām to Rājmahāl and forming the northern escarpment of the Hazāribāgh highlands, cannot be correctly considered as a part of the Vindhyas.

The range commencing in Gujarāt crosses the Central India Agency from Jhābuā State in the west, and defines the southern boundary of the Saugor and Damoh Districts of the Central Provinces. From here the KAIMUR branch of the range runs through Baghelkhand or Rewah and the United Provinces into Bihār. The Kaimur hills rise like a wall to the north of the Son valley, and north of them a succession of short parallel ridges and deep ravines extends for about 50 miles. At Amarkantak the Vindhyas touch the Sātpurā hills at the source of the Narbadā. Westward from the Jubbulpore District they form the northern boundary of the valley of that river. Their appearance here is very distinctive, presenting an almost uninterrupted series of headlands with projecting promontories and receding bays like a weather-beaten coast line. In places the Narbadā washes the base of the rocks for miles, while elsewhere they recede and are seen from the river only as a far-off outline with the plains of Bhopāl or Indore spread out below them. The rocks are sandstone of a pinkish colour and lie in horizontal slabs which commonly testify to their origin by curious ripple marks plainly formed by the lapping of water on a sandy

shore To the north of this escarpment lies the Bundelkhand or Malwā plateau with a length of about 250 miles and a width at its broadest part of about 225. The plateau is undulating and is traversed by small ranges of hills, all of which are considered to belong to the Vindyan system

Outlying ranges

The most northerly of these minor ranges, called the Bindhāchal, cuts across the Jhānsi, Bāndā, Allahābād, and Mirzapur Districts of the United Provinces, nowhere rising above 2,000 feet The range presents the appearance of a series of plateaux, each sloping gently upward from south to north, and ending abruptly in the steep scarp which is characteristic of these hills Many outlying isolated hills are found in these Districts standing out on the plains beyond the furthest scarp. One small hill, called Pabhosā, stands on the left bank of the Jumna, the only rock found in the Doāb. The Bhānrer or Pannā hills form the south-eastern face of the Vindhyan escarpment and bound the south of the Saugor and Damoh Districts and the north of the Māihar State in continuation of the Kaimur, thus being a part of the main range. They run from north-west to south-east for about 120 miles. Their highest peak is that of Kalumar which has an elevation of 2,544 feet. Two other branches of the range lie in Mālwā, starting respectively near Bhilsa and Jhābuā with a northerly direction and bounding the plateau to the east and west.

The general elevation of the Vindhyan range is from [illegible] 1,500 to 2,000 feet and it contains a few peaks above [illegible] none of which is of any special importance. The range forms with the Sātpurās the watershed of the [illegible] of India, and contains the sources of the Chambal, [illegible] and Ken rivers, besides others of less importance. The [illegible] Narbadā rise at Amarkantak, where the [illegible] ranges join. The rivers generally [illegible] escarpment and flow north and north-east.

Geologically the hills are formed [illegible] massive sandstones of varying [illegible] softer flags and shales, [illegible] not greatly inferior to that of [illegible] its name to the Vindhyan [illegible] ture Over a great part of the [illegible]

is covered by the overflowing Deccan trap, while from Ganurgarh fort in Bhopāl to near Jobat, the range itself is of basaltic formation, and the last sixty miles to the west from Jobat to near Jambhughorā consist of hills of metamorphic rocks. In the north the underlying gneiss is exposed in a great gulf-like expanse. Economically the Vindhyan rocks are of considerable value, the sandstone being an excellent building material which has been extensively used for centuries; the Buddhist topes of Sānchi and Barhut, the 11th century temples of Khajurāho, the 15th century palaces of Gwalior, and numerous large forts at all important positions on the plateau having been constructed of this material. At Nagod and other places limestone is found in some quantity, the pretty coraline variety, extracted from the Bāgh cretaceous beds, having been extensively employed in the palaces and tombs at Māndū; and at Pannā in the conglomerate which underlies the shales, diamonds are met with in some quantity, though none of any great value has been extracted. Manganese, iron, and asbestos are also found in the various parts of the range. The lofty flat-topped hills and bold scarps which are such a marked feature of this range were early recognised as ideal sites for fortresses, and, besides the historical strongholds of Gwalior, Narwar, Chanderī, Māndū, Ajaigarh, and Bandogarh, the hills are studded with the ruined castles of marauding Girāsia and Bundelā chiefs.

sts. The hills are generally covered with a stunted forest growth of the species found in the dry forests of Central India. Teak only occurs in patches and is of small size, while the forests are generally noticeable for their poverty of valuable timbers.

.olo- ia- The term Vindhya in Sanskrit signifies "a hunter" and the range occupies a considerable place in the mythology of India, as the great demarcating line between the Madhya Desa or "middle land" of the Sanskrit invaders, and the non-Aryan Deccan. The Vindhyas are personified in Sanskrit literature, where they appear as a jealous monarch, the rival of king Himālaya, who called upon the sun to revolve round his throne as he did round the peak Meru. When the sun refused, the mountain began to rear its head to obstruct that luminary, and to tower above Himālaya and Meru. The

gods invoked the aid of Agastya, the spiritual guide of Vindhya. This sage called upon the Vindhya mountain to bow down before him, and afford him an easy passage to and from the south. It obeyed and Agastya passed over. But he never returned, and so the mountain remains to the present day in its humbled condition, far inferior to the Himālaya. Another legend is that when Lakshmana, the brother of Rāma, was wounded in Ceylon, by the king of the demons, he wished for the leaves of a plant which grew in the Himālayas to apply them to his wound. Hanumān, the monkey-god, was sent to get it, and not knowing which plant it was, he took up a part of the Himālayas and carried them to Ceylon. He happened to drop a portion of his load on the way and from this the Vindhyan hills were formed.

* **Kaimur Hills**.—The eastern portion of the Vindhyan range commencing near Katangī in the Jubbulpore District of the Central Provinces (23° 26′ N. and 79° 48′ E.). It runs a little north of east for more than 300 miles to Sasarām in Bihār (24° 57′ N. and 84° 2′ E.). The range after traversing the north of Jubbulpore District and the south-east of Maihar State turns to the east and runs through Rewah territory separating the valleys of the Son and Tons rivers and continues into the Mirzāpur District of the United Provinces and Shāhābād in Bengal. Its maximum width is 50 miles. In the Central Provinces the appearance of the range is very distinctive. The rock formation is metamorphic and the strata have been upheaved into an almost vertical position, giving the range the appearance of a sharp ridge. In places the range almost disappears, being marked only by a low rocky chain and in this portion it never rises more than a few hundred feet above the plain. The range enters Central India at Jukehi in Maihar State (23° 29′ N. and 80° 27′ E.), and runs for 150 miles in a north-easterly direction forming the northern wall of the Son valley and overhanging the river in a long bold scarp of sandstone rock, from which near Govindgarh a branch turns off to the north-west. The range attains here an elevation of a little over 2,000 feet. In Mirzāpur the height of the range decreases in the centre to rise again

* Also to appear in Central Provinces, Central [illegible]

to over 2,000 feet at the rock of Bijaigarh with its ancient fort. Very interesting relics of prehistoric man have been found in the caves and rock-shelters of the hills here in the form of rude drawings and stone implements. In Shāhābād District the summit of the hills consists of a series of saucer-shaped valleys, each a few miles in diameter, containing a deposit of rich vegetable mould in the centre and producing the finest crops. The general height of the plateau is here 1,500 feet above sea-level. The sides are precipitous, but there are several passes, some of which are practicable for beasts of burden. The ruined fort of ROHTAS is situated on these hills. The rocks throughout consist principally of sandstones and shales.

Sātpurās East.—The eastern extension of the Sātpurā Hills of Central India lying east and south of the Son. In the United Provinces they form a wilderness of parallel ridges of low rocky hills extending over 1,700 square miles in the south of Mirzāpur, and covered with jungle, with the exception of a large basin in *tappa* Singraulī and a smaller area in Dūdhī where the soil is alluvial and allows cultivation. Coal has been found in Singraulī, and an attempt was made in 1896 to work it. The few inhabitants are chiefly jungle tribes, Kols, &c., resembling those in Chotā Nāgpur.

Gohnā *(Gaunā)*.—A lake of recent formation situated near the small village of Gohnā in the Garhwāl District of the United Provinces in 30° 22′ N. and 79° 29′ E. Towards the end of the rains in 1893 two landslips took place on the right bank of the Birahī Gangā, a tributary of the Alaknandā (see GANGES). The side of a steep hill, towering 4,000 feet above the level of the stream, crashed down into the valley hurling large blocks of limestone against the opposite cliff to the distance of a mile in places, and forming a dam more than two miles long at the base and one-third of a mile along the top, which completely blocked the valley to a height of 850 to 900 feet. It has been estimated that the dam contained 9 billion cubic feet of dolomite and detritus weighing 8 hundred million tons. Special arrangements were successfully made to avoid the damage to life and property to be expected when the water should reach the top of this dam and commence to cut it away. The pilgrim road

to the shrines in the upper Himālayas lies close along the line of escape, and bridges were dismantled and diversions constructed. At Hardwār it was necessary to protect the head-works of the Ganges Canal. In December, 1893, the area of the lake was about one square mile and its depth 450 feet. By July, 1894, the lake had become a large sheet of water, nearly 4 miles long and half a mile broad, and the level of the water had risen nearly 170 feet, while percolation was freely taking place. A month later the water was rising about 4 feet a day, and on the morning of August 25th water began to trickle over the dam, which was rapidly cut away. It was found next day that the level of the lake had fallen 390 feet, leaving a stretch of water 3,900 yards long with an average breadth of 400 yards. The depth near the dam was 300 feet and the bed had already silted up about 85 feet. Immediately below the dam the flood rose 280 feet, but its height rapidly decreased as the channels of the rivers, which carried it off, became wide. At Rudra Prayāg 51 miles away, the rise was 140 feet; at Beāsghāt, 99 miles, 88 feet; and at Hardwār, 149 miles, only 11 or 12 feet. The total damage caused to public property was valued at more than Rs. 95,000, but no lives were lost except those of five persons who insisted on remaining just below the dam. At Hardwār the head-works of the Ganges Canal were slightly damaged, but beyond this point the flood had no appreciable effect. The outlet of the lake now appears to have a stable bed.—*(Selections from Records, Government of India, Public Works Department No. CCCXXIV.)*

Dāhar Lake.—*A picturesque sheet of water near Sāndī in* the Hardoī District of Oudh, with fine mango groves on its banks and lotus leaves floating on its waters, situated in 27° 19′ N. and 79° 58′ E. It is about two miles long and three-quarters of a mile wide. Fish abound in it, and in the cold weather water-fowl are plentiful. The depression in which this lake is situated was probably a part of an old bed of the Rāmganga which now flows some distance away to the west.

Bakhira Tāl (also called Badānch Tāl or Motī Jhīl).—A lake on the eastern border of the Bastī District of the United Provinces. Buchanan described it as the finest piece of fresh water he had seen in India. It covers a space of [illegible]

by two, but is merely a shallow depression filled with water, the depth of which rarely exceeds four or five feet. On the west and south the fringe of marsh is small, but on the north a tract, which is regularly flooded in the rains, extends for three miles. To the east a low fen stretches for about two miles to the edge of the RAPTI. The water in the lake is largely supplied by floods from this river, and would escape again but for an embankment along the eastern side. Fish are plentiful, and are caught in screens at the outlets of the dam or speared with a thin piece of bamboo tipped with iron. In the cold weather the surface of the water is covered with large numbers of wild-fowl. *Boro* or summer rice is largely planted in February or March round the edges of the lake.

Surahā Tāl.—A lake in the Balliā District of the United Provinces four miles north of Balliā town, situated in 25° 51′ N. and 84° 11′ E. Its shape is that of a thick crescent lying north and south, and its area varies from 13 square miles in the rains to a little over four in the dry season. *Boro* (summer rice) is largely sown in the spring round the edge and in the deeper parts of the lake the weed *siwār* grows largely, which is used for refining sugar. Fish are plentiful and are caught by sinking nets stretched on conical frameworks, the fish being speared as they try to escape. In the cold weather teal and duck are common. The lake is drained by a channel called Katehar, which leads south to the Ganges; but when the Ganges rises, its waters flow back into the lake. In the cold weather the Katehar is temporarily dammed to hold up sufficient water for irrigation of the crops on the banks of the lake.

Ganges Canal, Upper.—The largest and most important irrigation work in the United Provinces, taking off from the right bank of the GANGES river and watering the upper Doāb. Two miles above Hardwār the Ganges divides into several channels, the most westerly of which contains a large volume of water and, after passing Hardwār, rejoins the main stream at Kankhal. This channel is held up by a temporary dam which diverts the water into the canal head-works, where the amount admitted is regulated at the Māyāpur bridge. In the first 20 miles of its course four large torrents liable to sudden floods of extreme violence have to be crossed. Two of these

are carried over the canal, the third is passed through it by a level crossing provided with flood gates, and the canal itself flows on a magnificent aqueduct over the bed of the SOLANI. At mile 22 the canal throws off the Deoband branch 52 miles long; at mile 50 the Anūpshahr branch (107 miles), and at mile 181 (at Nānū in the Alīgarh District) it divides into what were originally called the Cawnpore and Etāwah branches of the Ganges Canal. The LOWER GANGES CANAL now crosses these in their 32nd and 39th miles respectively, and from the points of junction they are considered to belong to it. The Upper Ganges Canal, on March 31st, 1904, had 213 miles of main line, 227 miles of branches, 2,694 miles of distributaries.

In 1827 Captain De Bude proposed a scheme for utilizing the waters of the West Kālī Nadī, along a drainage line constructed under native rule, to irrigate the Meerut, Bulandshahr, and Alīgarh Districts. The supply would, however, have been deficient and uncertain, and in 1836, at the suggestion of Colonel Colvin, the Ganges was examined near Hardwār. The next year a terrible famine devastated the Doāb, and increased the anxiety of Government to provide a satisfactory scheme. Major (afterwards Sir) Proby Cautley commenced a survey in 1839, and prepared a project which was warmly approved by the Board of Directors in 1841, the estimated cost being over a million sterling. In April, 1842, the actual works were commenced by opening the excavation between Kankhal and Hardwār. The work had, however, hardly begun when Lord Ellenborough abruptly stopped it on the grounds that money could not be spared and that the project was unsound from an engineering point of view. Subsequently the totally inadequate grant of two lakhs a year was made. In 1844, shortly after assuming office, Mr. Thomason, the Lieutenant-Governor, made a strong representation on the subject, and was informed that the main object of the canal was to be navigation, not irrigation. The grant was, however, increased by a lakh a year, and surveys were pressed on. A committee considered the arguments raised, and in 1847 reported favourably on the scheme. Lord Hardinge visited the head-works in the same year, and reversed the decision of his predecessor: an annual grant of 20 lakhs a year was sanctioned, with the promise of more if it could be usefully . The

revised estimate of 1½ million sterling was passed by the Directors in 1850, and the canal was opened in April, 1854. The works were, however, not complete; in particular, those at the Solāni river gave way, and irrigation really commenced from May 1855. Although the canal had been extraordinarily successful, owing to the genius of its projector, Sir Proby Cautley, ten years' experience pointed out defects in the system, and in 1866 a committee sat to examine the proposals which had been made. The result of their report was the expenditure of large sums on improvements and remodelling, the chief objects of which were to increase the supply, and to reduce the excessive slope of the channel by providing more falls. They also recommended a site near Rājghāt in Alīgarh as a point from which a supplementary supply might be drawn, and this was carried out later in the Lower Ganges Canal.

The expenditure on capital account up to 1904 has been about 3 crores of rupees (£2,000,000 at present rate of exchange).

The total area commanded by the canal at the end of 1903-04 was 3,800,000 acres in the Sahāranpur, Muzaffarnagar, Meerut, Bulandshahr, Alīgarh, Muttra, Agra, Etah, and Mainpurī Districts, of which 978,000 were irrigated. There is not much room for further increase. The canal also supplements the supply available in the LOWER GANGES and AGRA CANALS (by means of the Hindan cut). The gross revenue first exceeded the working expenses in 1860-61, and since then has been less in only one year. The net revenue has been larger than the interest charges on the capital expended since 1873-74. The most successful year of working was 1900-01, when the net revenue amounted to 11½ per cent. on the capital outlay. In 1903-04 the gross and net revenue amounted respectively to 42 and 31 lakhs, the latter representing 10·3 per cent. on the capital outlay.

Special expenditure has been undertaken to facilitate navigation by constructing locked channels round falls, and raising bridges, and boats can travel from Roorkee to Cawnpore. The portion of the Cawnpore branch from Nānū to Gopālpur, where it meets the Lower Ganges Canal, is chiefly kept open for navigation, and both the Ganges Canals are, in this respect, considered a single system. Operations are carried on at a loss, and

the receipts in 1903-04 were Rs 11,000, while expenditure was Rs 19,000 Grain, cotton, oilseeds, and timber are the most important commodities, the rafting of timber is, however, decreasing A small income is derived from mills worked by water power at the falls, and the water supply of Meerut city is raised by turbines worked by the canal

Ganges Canal, Lower—An important irrigation work designed to water the southern and eastern portion of the DOAB of the United Provinces The canal owes its origin to the recommendations of the committee appointed in 1866 to examine the various projects for improving the UPPER GANGES CANAL, It takes out of the Ganges at Naraura in Aligarh District, where a solid wall 3,800 feet long, with a section of 10 feet by 9, having 42 weir-sluices, has been thrown across the river At mile 25 the Fatehgarh branch, 61 miles long, is given off, and soon after, at mile 34, the canal is carried on a fine aqueduct across the Kali Nadi at Nadrai The Bewar branch, 65 miles long, takes out 6 miles lower down, and at mile 55 the main canal meets the old Cawnpore branch of the Upper Ganges Canal at Gopalpur, and provides most of its supply It then passes on to the Etawah branch of the Upper Ganges Canal and supplies it also, the main channel then taking the name of the Bhognīpur branch and terminating in the Cawnpore District The canal was first opened for irrigation in 1878, in 1895 the Fatehpur branch, which is a continuation of the Cawnpore branch, extending into Allahabad District, was commenced, and it was opened for irrigation in 1898 The total capital outlay on this canal to the end of 1903 04 was more than 4 crores The system commands an area of 5,300,000 acres in Etah, Mainpuri, Farrukhabad, Etawah, Cawnpore, Fatehpur, and Allahabad Districts, of which 831,000 acres were irrigated in 1903 04 The gross revenue has exceeded the working expenses since 1880 81, but the net revenue still falls, in some years, below the interest charges In 1903-04 the canal earned 28 lakhs gross and 15 lakhs net, giving a return of 3 8 per cent on the capital outlay The main channel of 62 miles and 137 miles of branches are navigable Navigation accounts are kept jointly with those of the U[illegible]ges Canal

Jumna Canal, Eastern.—An important irrigation work in the upper DOAB of the United Provinces taking out from the left or eastern bank of the Jumna. The canal is drawn from a branch of the river which divides soon after piercing the Siwāliks. The bed at this point has a rapid slope over boulders and shingle, and the supply is easily maintained by spurs. For some miles the canal itself flows over a similar bed. The main channel is 129 miles long, and there are 729 miles of distributaries and 447 of drains. Immediately after the occupation of the Doāb, recurring famines pointed to the urgent necessity for irrigation, and surveys commenced in 1809, but work was not begun till 1823. Funds were limited, and the canal was first opened in January 1830. Sir Proby Cautley's experience on this canal was of great assistance in carrying out the magnificent works of the more important Upper Ganges Canal. The line followed kept closely to that of an old canal of the 17th century. It has been much improved since it was opened by providing falls (which also supply power for flour mills) to lessen the slope, and by straightening the channel.

The capital cost at the end of 1830-31 amounted to little more than 4 lakhs and this had increased to 46 at the end of 1903-04. The canal serves a rich tract in the Districts of Sahāranpur, Muzaffarnagar, and Meerut, lying between the Hindan and Jumna, and falls into the latter river a little below Delhi. It commands an area of 906,000 acres and in 1903-04 irrigated 305,000. The gross revenue has exceeded working expenses in every year except during the Mutiny, and the net profits on this canal are usually high, amounting to 9·9 lakhs or 22 per cent. on the capital outlay in 1903-04, while the gross profits were 14·5 lakhs. Since 1837-38 the canal has not been used for navigation purposes.

Agra Canal.—An important irrigation work, which receives its supply from the right bank of the Jumna river at Okhla, about 11 miles below Delhi. It protects a tract of country which has suffered considerably in the past from famine. The weir across the Jumna was the first attempted in upper India on a river having a bed of the finest sand: it is about 800 yards wide and rises 7 feet above the summer level of the river. In 1877 a cut was made from the HINDAN river to the left

bank of the Jumna close to the weir, and water from the Ganges Canal can thus be used, when available, to supplement the supply in the Jumna, which sometimes falls short The total length of the main canal in 1904 was 100 miles, of branches 9 miles, of distributaries 633 miles, of drainage cuts 191 miles, and of other channels 57 miles The main channel was completed in 1874 and irrigation commenced in the spring harvest of 1875 The total capital outlay to 1904 was 102 lakhs The canal commands an area of 597,000 acres, of which about 8 000 acres are situated in the Delhi and 210,000 acres in the Gurgaon District of the Punjab, and in the United Provinces 228,000 acres in Muttra and 151,000 in Agra The total area actually irrigated in 1903-04 was 260,000 acres, the gross and net revenues were 8 4 and 5 6 lakhs and the net revenue amounted to 5 5 per cent on the capital outlay The gross revenue has exceeded the working expenses in every year after 1876 77, and the net revenue has been larger than the interest charges on capital since 1896-97, but taking the whole period of existence of the canal, the interest charges have exceeded the net revenue by nearly 14 lakhs The total length open for navigation was 125 miles, including two branches to the Jumna at Muttra and Agra 9 and 16 miles in length which cost 1 8 and 4 9 lakhs, respectively, and were made especially for this purpose The traffic was, however, small, and in 1903 04 only 14,221 tons of goods, valued at Rs 90,000, were carried The navigation receipts were Rs 1,600, and the expenditure was Rs 6,500 Navigation was finally stopped in 1904, as it interfered with irrigation, which is *the prime object of the canal*

Agra Province —The *Subah* or province of Agra was one of twelve into which the Mughal empire was originally divided by Akbar It took its name from AGRA, the headquarters of the province, and both town and province were subsequently called Akbarabad The *Subah* is described in the Ain i-Akbari as 175 *kos* long from Palwal (now in the Gurgaon District), to Ghatampur (Cawnpore District), and 100 *kos* broad from Kanauj (Farrukhabad District) to Chanderi (Gwalior State) It thus included, in the present United Provinces, the whole of the Agra Division, with the Aligarh and half the Bulandshahr District to the north, and most of the C

Jhānsi Districts to the east and south. On the west it extended to parts of the present Jaipur, Alwar, Bharatpur, Karauli, and Dholpur States in Rājputāna, and Gwalior in Central India. The province nominally survived till the end of the 18th century, though Rājputs, Jāts, Marāthās, and the Pathāns of Farrukhābād had been the actual rulers for nearly a hundred years. The eastern portion which is now British territory was acquired, partly by cession from the Nawāb of Oudh in 1801, and partly by conquest from the Marāthās in 1803, and was included, with other areas acquired at the same periods, in the Presidency of Bengal. Administrative difficulties arose owing to the distance of these outlying tracts from the seat of Government at Calcutta, and after various temporary measures a Board of Revenue, and a Sadr Dīwāni and Nizāmat Court (Chief Civil and Criminal Court) were constituted in 1831 for the so-called Western Provinces, entirely independent of the Board and Court at Calcutta. A few years later a Presidency of Agra was formed by the Statute 3 and 4 William IV, Cap. 85, which included the whole of the present UNITED PROVINCES, except Oudh and parts of Bundelkhand, and a Governor was appointed. The scheme was, however, never completely carried out, and a Lieutenant-Governor of the North-Western Provinces, which included the same area, was appointed in 1836 under the Statute 5 and 6 William IV, Cap. 52. By Act VII of 1902 a change was made in designation, and the North-Western Provinces and Oudh became the United Provinces of Agra and Oudh. The term Agra is now applied [section 4(4), United Provinces Act I of 1904] to the territories formerly known as the North-Western Provinces.

Baiswārā.—The name given to several tracts of country in various parts of the United Provinces from the fact that they belong or have belonged to the Bais Rājputs. The most important of these includes a number of *parganas* (traditionally 22) in the eastern half of Unao District, the western half of Rāe Barelī, and the extreme south of Lucknow, with a total area of nearly 2,000 square miles. The Bais Rājputs first became of importance here in the 13th century, when two of them, named Abhai Chand and Nirbhe Chand (who are supposed to have come from Mungī Pātan in the Deccan), rescued the Gautam Rānī of Argal, who had been attacked by the Muhammadan governor of Oudh.

Nirbhe Chand died of his wounds, and the Rājā of Argal gave a daughter to Abhai Chand, who settled at Daundiā Khera. Tenth in descent from him came the great Tilok Chand, who lived about 1400, and extended the area held by the Bais to the limits described above. Legends are numerous about Tilok Chand, who became the greatest noble in Oudh, and opposed the Muslims as did his immediate successors. According to one he defeated the Chauhān Rājā of Mainpurī, who thereupon gave him a daughter to wife, though the Bais were reckoned inferior to the Chauhāns. In the 18th century the bravery of the chiefs of Baiswārā gained the admiration of Saādat Khān, the founder of the Lucknow dynasty. Under the Oudh Government Baiswārā formed a separate administrative division, as described above. The Baiswārā Division formed by the British Government after annexation consisted of Rāe Barelī, Partābgarh, and Sultānpur, the last two Districts having nothing to do with the real Baiswārā. The tract has given its name to a dialect of Eastern Hindi, which differs very slightly from other dialects of that language. Its inhabitants still bear a reputation for bravery. The Bais chieftain, Drig Bijai Singh, in 1857, saved the four survivors of the Cawnpore massacre from their pursuers.—(*Elliott, Chronicles of Oonao, page* 66, et seq.)

Bundelkhand (British).—A tract of country in the United Provinces which includes the Districts of JALAUN, JHANSI, HAMIRPUR, and BANDA with those parts of ALLAHABAD which lie south of the Jumna and Ganges. It thus consists of an area of about 11,600 square miles lying south-west of the Jumna from its junction with the *Chambal*. The name is taken from that of the Bundelā Thākurs, the most important clan in it. The word "Bundelā" is popularly derived from *būnd*, a drop, in allusion to the attempted sacrifice of himself by the founder of the clan, a Gaharwār. His son was born from the drops of blood which fell on the altar of Vindhyabāsinī Devī at Bindhāchal (see MIRZAPUR CITY). Other derivations are from Vindhya, or from *Bāndī*, a slave-girl.

The northern range of the eastern Vindhyas called Bindhāchal cuts across the south of Jhānsi, Bāndā, and Allahābād, with many outlying isolated hills, but nowhere rises above 2,000 feet. The base of the hills rests on gneiss, while the hills themselves Physical features.

are of sandstone overlaid south of these Provinces with basalt, the Deccan trap, which has also spread north in dykes. From the hills numerous streams flow north or north-east towards the Jumna, of which the most important are the BETWA, DHASAN, Birmā, KEN, Bāghain, Paisunī, and (southern) TONS. The geological formation of southern Bundelkhand has greatly influenced the soil of the alluvial plain lying between the hills and the Jumna. This contains a large proportion of disintegrated trap, which gives it a dark colour; it is especially useful for growing wheat, and is known as black soil, and in vernacular as *mār*. A variety of lighter colour and differing qualities is known as *kābar*. From Jhānsi to Lalitpur a soil called *rākar* is found, the prevailing colour of which is largely red or yellow owing to the presence of iron in the disintegrated gneiss. Another soil of red colour is formed from disintegrated sandstone *in situ*, and though productive is easily exhausted as it is very shallow. Black soil is retentive of moisture, but requires irrigation in unfavourable seasons, and in dry weather opens out in large cracks. During the rains unmetalled roads are almost impassable owing to the tenacious mud formed on them. A native proverb says that *kābar* is too wet to plough one morning, and too dry and hard to plough the next day.

tory.

In Bāndā as in other tracts crossed by the Vindhyas, many varieties of stone implements have been found, the relics of prehistoric man.* The earliest traditions connected with British Bundelkhand relate that it was ruled over by Gaharwār Rājputs. Nothing certain is known of these; but some of the numerous tanks formed by throwing embankments across the narrow ends of valleys are attributed to them, *viz.* those the embankments of which are formed of uncut stone. The largest is the Bijainagar lake, situated about three miles east of Mahobā. According to tradition the Gaharwārs were followed by Parihārs, who were succeeded by Chandels, a clan which has left many memorials of its rule. Nothing but the name is known of Nānika or Nannuka, described in several inscriptions as the founder of the dynasty; but he probably flourished in the first half of the 9th century A.D. The fourth Rājā Rāhila (*circa* 890—910) seems

* J. Rivett-Carnac, J.A.S.B., 1883, page 221 and J. Cockburn, J.A.S.B., 1894, Part III, page 21.

to have extended his dominions, and he constructed the Rāhilya Sāgar (lake) at Mahobā, with a fine temple, now in ruins, on its embankment. The earliest dated inscriptions are those of Dhanga (950—999), who appears to have been the most powerful of the early Chandels. He assisted Jaipāl of Lahore in his unsuccessful invasion of the Ghazni kingdom in 978, and according to his inscriptions was recognised as over-lord by rulers of most of central, southern, and eastern India; but this is clearly an exaggeration. His successor, Ganda (999—1025), who appears as Nanda Rai in the Muhammadan histories, also assisted Jaipāl of Lahore against Mahmūd of Ghazni, and according to Firishta he killed the king of Kanauj in 1021, but surrendered to Mahmūd in 1023, when he was in possession of fourteen forts. Kīrtti Varmma I, the eleventh king (1049—1100) seems to have been reigning when his son, Sallakshana, conquered Karna, king of Chedi or southern Kosala. He is also the earliest Chandel, whose coins, copied from those of the Chedi kings, are known. Tradition assigns to him the construction of the Kīrat Sāgar at Mahobā, and some buildings at Ajaigarh. Madan Varmma, fifteenth king (1130—1165), was a vigorous ruler, who extended the sway of the Chandels. He again subdued the Chedi kingdom which had become independent, and is said to have conquered Gujarāt. His immediate successor, Paramārdī Deva or Parmāl (1165—1203), is still remembered, as during his reign Prithwī Rāj of Delhi conquered Bundelkhand in 1182, and the Chandel power received a second blow in 1203, when Kutab-ud-dīn raided the country. Popular tradition *holds that Paramārdī lost his kingdom through disobeying the* four conditions laid on the founder of the race—not to drink wine, not to put Brāhmans to death, not to make improper marriage connections, and to preserve the name of Varmma. The Chandel dominion lay between the Dhasān on the west, the sources of the Ken on the south, the Jumna on the north, and the Vindhya hills on the east. At times it extended as far west as the Betwā. Kālinjar, Khajurāho, Mahobā, and Ajaigarh were its great fortresses. In the inscriptions the country is sometimes called Jejāka-bhukti, which has been contracted into Jījhotī, from which the Jījhotia Brāhmans, who still inhabit the tract, take their name. The kingdom of Chi-ki-to described

by Hiuen Tsiang in the 7th century as lying north-east of Ujjain has been identified with Jejāka.

After the Musalmān conquest the Chandels became petty Rājās. The country was held for a short time by Mewātīs, probably in the first half of the 13th century, and then by Bhars. Tradition shows the latter owning a large part of the eastern Doāb and central Oudh, and the Persian historians record the conquest by Ulugh Khān, in 1248, of a king Dalakī-wa-Malakī, reigning from Karā to Kālinjar. The name appears to be a compound of two names, Dal and Bal, known from tradition. The Bhars are locally said to have been driven out by a Muhammadan, and replaced by the Khangārs, formerly servants of the Chandels.

lelās.

The Bundelās claim to be descended from Pancham, a Gaharwār who attempted to sacrifice himself, as noted above; but their origin is obscure. They probably began to acquire power in the 14th century, first settling at a place called Mau, which has not been definitely identified, and then taking Kālinjar and Kālpī; but some writers place them a century earlier. As their power increased, chiefly in western Bundelkhand (Central India), the Bundelās constantly came into collision with the Muhammadans. About 1507 Rudr Pratāp became chief, and is said to have been formally appointed governor by Bābar. From his sons most of the great Bundelā families derive their descent. In 1545 Sher Shāh invaded Bundelkhand, and lost his life while besieging Kālinjar. Kīrat Singh, the last Chandel Rājā, was put to death by Islām Shāh, who took the fort; but it again fell into the hands of the Bundelās, till in 1569 Akbar got possession of it. The Bundelās, who were now divided, still held considerable power and were often successful in resisting the royal troops. Bīr Singh Deo, who ruled at Orchhā, and commenced the fort at Jhānsi, incurred the special anger of Akbar by planning the murder of Abul Fazl at the instigation of prince Salīm, afterwards the emperor Jahāngīr, and though he remained in favour during the reign of the latter, he rebelled against Shāh Jahān, and his territory was confiscated. The central part of Bundelkhand was ruled by Champat Rai from Mahobā. He joined in Bīr Singh Deo's revolt, and though attacked by forces from Agra, from Allahābād, and from the Deccan, maintained a

guerilla warfare near the Betwā. He finally accepted service under the emperor and obtained the *pargana* of Kūnch in Jālaun, and in return for assistance given to Aurangzeb at the battle of Sāmogarh, received further grants, but lost favour and was assassinated by his wife's relations. Champat Rai's son, Chhatarsāl, soon became chief leader of the Bundelās and in a few years held the whole of western Bundelkhand, and gradually extended his power, taking Kālinjar and most of British Bundelkhand. He defeated the imperial troops again and again, and in 1707, on the accession of Bahādur Shāh, was confirmed in all the acquisitions he had made. In 1723 Muhammad Khān Bangash of Farrukhābād, while governor of Mālwā, was ordered to bring the Bundelās to order; and in 1727, after his transfer to Allahābād, he attacked them again, laying waste the whole country. Unable to resist the invasion, Chhatarsāl called in the Marāthās in 1729, and Muhammad Khān barely escaped with his life, glad to promise never to enter Bundelkhand again. When Chhatarsāl died, about 1734, he left one-third of his land (Jhānsi and Jālaun) to the Marāthās, and the rest was divided among his heirs. Bundelkhand was valuable to the Marāthās, as it lay on the road from the Deccan to the Doāb, and Bājī Rao made constant use of it, all the Bundelās binding themselves by treaty to co-operate with him. In 1747 the Peshwā further extended his possessions in Bundelkhand by a fresh treaty, and nearly twenty years later troops from Bundelkhand assisted Shujā-ud-daula of Oudh in his unsuccessful struggle with the English. British troops first marched against this country in 1776, when war broke out with the Marāthās after the treaty of Purandhar, but they passed through without retaining any hold on the country. The Bundelās then succeeded in freeing themselves to some extent from the Marāthā power. A Gosain or religious *mendicant* named Himmat Bahādur, who had already commanded troops, now began to rise into power, and he combined with Alī Bahādur, an illegitimate grandson of Bājī Rao, who was in command at Gwalior, to crush the Bundelā chiefs. A long struggle took place between 1790 and 1802, when Alī Bahādur died while attempting to take Kālinjar. By the treaty of Bassein in 1802 the Peshwā ceded to the British territory, some of [illegible] afterwards exchanged for part of the Marāthā [illegible].

Bundelkhand. Another portion was acquired under a second treaty of December 1803. The subordinate Marāthā chiefs refused to recognise these treaties, and Shamsher Bahādur, son of Alī Bahādur, undertook to lay waste Bundelkhand and the British Districts of Mirzāpur and Benares. Himmat Bahādur then abandoned the Marāthās and came over to the British, who granted him a large territory along the Jumna between Allahābād and Kālpī. British troops co-operated with Himmat and drove Shamsher across the Betwā, and in 1803 took Kālpī. Shamsher became titular Nawāb of Bāndā with a pension of four lakhs, and by the end of 1804 the tract was fairly quiet. The fort of Kālinjar was taken in 1812. Subsequent additions to British territories took place by lapse, and Jhānsi city was acquired from Gwalior in exchange for Gwalior fort and Morār in 1886.

pula-
on.

The population of British Bundelkhand fell from 2,693,000 in 1891 to 2,456,000 in 1901, a decrease of nearly 9 per cent. Excessive rainfall and cloudy weather in the winters of the early years of the decade brought on rust, which damaged the spring crops and caused great loss to the people. The failure of the rains in 1895 and 1896 caused severe famine, and a virulent cholera epidemic broke out. The density is only 212 per square mile or less than one-half of the density in the United Provinces generally. Of the total population 2,297,000, or more than 93 per cent. are Hindus, and only 143,000 or less than 6 per cent. are Muhammadans, while the followers of Islām form 14 per cent. of the population in the United Provinces as a whole. British Bundelkhand extends to the jungles of Central India, and its inhabitants have a strong infusion of Dravidian blood. The principal jungle tribes are the Kols, Khangārs, and Sahariās, who have become nominally Hinduised. The change is, however, more noticeable in regard to social customs, such as marriage rules, than in the religious beliefs of these people which continue strongly animistic. A few estates are still owned by Marāthās, but the effects of their rule have almost disappeared. In Bāndā and Allahābād the Baghelī and Awadhī dialects of Eastern Hindī are spoken, while in Hamīrpur, Jhānsi, and Jālaun the vernacular is the Bundelī dialect of Western Hindī.

ricul-
e.

While in the United Provinces, as a whole, the autumn crops cover an area only about 16 per cent. greater than the

spring crops, in Bundelkhand they are nearly double About one third of the autumn crop is *jowar* and one seventh cotton, and from 50 to 80 per cent of the spring crop is *gram* These proportions vary according to the seasons, and after good rain the *rabi* area is largely increased Irrigation from wells is difficult owing to the low water-level, and the storage tanks made by closing valleys do not command large areas There is only one canal, drawn from the Betwa, a protective work which chiefly serves Jalaun In 1903 04, while one third of the net cultivated area in the Provinces was irrigated, only about 4 per cent of the cultivated area in this tract was watered It is thus peculiarly liable to suffer from defective rainfall A canal from the Ken to serve the Banda District has been commenced, and schemes to increase the water available in the Betwa Canal, which is, at present, insufficient for the demand, and to open other sources are under consideration Other calamities are the prevalence of rust, after a wet or cloudy cold weather, and the growth of a weed or grass called *kans*, which spreads rapidly and can only be eradicated with difficulty Famine has thus been severely felt again and again, and the failure of the rains in 1896, which followed successive bad years, was especially disastrous

Special legislation

The liability to good and bad cycles of agricultural conditions is coupled with peculiarities in the nature and disposition of the people Though perhaps not more extravagant than the inhabitants of the rest of the United Provinces, they are distinctly more improvident, and the careful cultivation and saving habits of the Jats, Kurmis, Kachhis, Muraos, and Kooris of other Districts are not found in Bundelkhand This may be partly traced to the liability to vicissitudes already referred to, and partly to the effects of the revenue system of the Marathas, who possessed the tract before the British The most common method was to assess a village annually at fixed rates on soil or crops, and to make deductions for bad seasons, after a valuation of the crops of each holding This was a system of rack renting, as the rates were the highest which could be paid in a good season, and it is obviously not a system under which either the standard of comfort, or the prosperity of a community would be likely to increase Except in part of the Lalitpur *tahsil* in Jhansi, the land

was chiefly held by individual cultivators, and *talukdārs* or large holders of land were very few. British rule conferred proprietary rights on the village headmen who were found managing land and collecting rents, and on a few relations of these who shared in the headman's special holding, or reduced rent. Instead of the demand being regulated by the season, a rigid system of collecting a fixed amount was introduced; land became a transferable security, and the owners, unaccustomed to their new conditions, got freely into debt, and lost their holdings. It was estimated that in Bāndā, most of which became British territory early in the 19th century, an aggregate area equal to twice or three times the area of the District, changed hands in the next forty years. Most of the Jhānsi District was acquired later, when more experience had been gained in revenue administration, and sale of land was not allowed till 1862: but even here sufficient allowances were not made. Some landowners had been in debt since the Marāthā rule. After the Mutiny revenue was collected from many from whom it had been extorted by the Orchhā or Jhānsi rebels. In 1867 the crops failed, and in 1868-69 there was famine, and great loss of cattle. In 1872 many cattle were lost from murrain. Although the settlement had appeared light it became necessary to re-examine the condition of the District in 1876. After much discussion the Jhānsi Encumbered Estates Act (XVI of 1882) was passed, and a Special Judge appointed, who was empowered to examine claims and reduce excessive interest. The sale of a whole estate operated as a discharge in bankruptcy to extinguish all debt due. Many estates were cleared by sale of a portion only. A striking feature of the proceedings was the rapid increase in the value of land.

The experiment, though apparently successful, had not a lasting effect. Bundelkhand suffered from another series of bad years, commencing with rust and blight in 1892-93, excessive rain in 1894, and drought in 1895 and 1896. Even in Bāndā, where the last settlement was made, not on actual assets, but on a fair average area of cultivation the population decreased by 10½ per cent. between 1891 and 1901. Debt had become serious in all parts of the tract. The Jhānsi legislation has therefore been revived, with modifications suggested by the experience gained, as (United Provinces) Act I of 1903, which has been applied to

the whole of British Bundelkhand. In addition to this, two new safeguards have been adopted. By (United Provinces) Act II of 1903 permanent alienations of land are forbidden where the alienor is a member of one of certain agricultural tribes, except in favour of another member of the same tribe, or where both parties reside in the same District and are both members of agricultural tribes. Except where permanent alienation is allowed, mortgages and leases are subject to the condition that possession of the land involved cannot be transferred for more than twenty years. Sales in execution of decrees passed by civil or revenue courts (other than those of the Special Judges who have been appointed) are forbidden, but such decrees may be liquidated by usufructuary mortgages for terms not exceeding twenty years. Large reductions of revenue have been made, and the settlement of all parts of Bundelkhand is being revised. Instead of the new demand being fixed for 30 years, it will be liable to further revision whenever the cultivated area fluctuates considerably.

(V. A. Smith, *History of Bundelkhand, Journal As. Soc., Bengal,* 1881, *page* 1; Cunningham, *Arch. Survey Reports, VII and XXI;* C. A. Silberrad, *Journal As. Soc., Bengal,* 1902, *page* 99; E. G. Jenkinson, *Settlement Report of Jhānsi,* 1871; A. Cadell, *Settlement Report of Bāndā,* 1881.)

Doāb (two rivers).—This name is commonly applied to the land between any two rivers, but especially to the tract between the Ganges and Jumna in the United Provinces, extending from the Siwāliks to the junction of the two rivers at Allahābād. The central and lower portions from Etāwah to Allahābād are often termed *Antarved*, the meaning of which is said to be either between the waters, or within the hearth. *Antarvedī* is also applied to the dialect of Western Hindī used in the central portion, a variety of Braj. The Doāb includes the Districts of Sahāranpur, Muzaffarnagar, Meerut, Bulandshahr, Alīgarh, parts of Muttra, and Agra, Etah, Mainpurī, the greater part of Etāwah and Farrukhābād, Cawnpore, Fatehpur, and part of Allahābād. Naturally a rich tract of alluvial soil, it has been fertilized and irrigated by three fine engineering works, the UPPER GANGES, LOWER GANGES, and EASTERN JUMNA CANALS, and much has been done to improve the drainage of the land. This is the greatest wheat-producing area in the

United Provinces, and it presents an almost unbroken sheet of cultivation, varied only by ravines on the banks of the Jumna and other rivers and occasional patches of barren *ūsar* (saline) plain or *dhāk (Butea frondosa)* jungle. The contrast between this condition and the state of the Doāb at the end of the 18th century, is striking. In 1794-95 Mr. Twining, a servant of the Company, travelled from Fatehgarh to Agra, Muttra, Delhi, and back across Alīgarh, and described most of the tract as a sandy waste. Although before British rule famine repeatedly devastated this area, canal irrigation has now rendered the greater part of it safe. In 1896-97 the peasants of the upper Doāb were able to hold stocks of grain, while almost every other part of the United Provinces was importing. The Fatehpur branch of the Lower Ganges Canal, opened in 1898, will do much for the three Districts nearest the confluence of the Ganges and Jumna. Cawnpore, the largest manufacturing town in the United Provinces, which is also an important collecting and distributing centre, Hāthras, Meerut, Sahāranpur, Allahābād, and Etāwah are the chief commercial centres. Smaller thriving towns are numerous, and a network of railways crosses the area in every direction and provides excellent means of communications with all parts of India. The Doāb, though it has lain in the tract of all invaders from the north, was never a historical entity, and the history of its different portions will be found in the accounts of the Districts composing it.

Hindustān.—A vaguely-defined area, sometimes applied to the whole of India north of the Vindhyas, in contradistinction to the Deccan (*Dakshin,* south) which lay south of them. Hindustān, in this sense, was bounded on the north by the Himālayas, on the east by Assam, on the south by the Vindhyas, and on the west extended into the Punjab and Rājputāna. It accordingly comprises the administrative tracts forming the Lieutenant-Governorships of Bengal, and the United Provinces, together with the eastern portions of the Punjab and Rājputāna, and perhaps the western Districts of Assam. In Muhammadan histories the term is used for a smaller area including the east of the Punjab and Rājputāna and the greater part of the United Provinces. Thus Abul Fazl treats the province of Lahore as outside of Hindustān. During

the 18th and first half of the 19th centuries the term Hindustān was loosely employed to include the whole of India. The name means the "place of the Hindus," and it has been applied to the *lingua franca* of northern India, called Hindustāni or Urdū, which is a dialect of Western Hindī, with a greater or less admixture of Arabic and Persian vocables, according to the taste of the speaker.

* Kosala (from *Kushala*, happy).—Two tracts of this name are known in Hindu literature. That north of the Vindhyas corresponded roughly to Oudh. In the Rāmāyana it is the country of Dasaratha and Rāma, with its capital at Ajodhyā, and it then extended to the Ganges. It was part of the holy land of Buddhism, and in Buddhist literature kings of Kosala also ruled over Kapilavastu. Srāvastī, the site of which is disputed, was the capital of Uttara Kosala, the northern portion over which Lava, son of Rāma, ruled after his father's death. Southern or great Kosala (Dakshina or Mahā Kosala), fell to Kusa, the other son of Rāma, and lay south of the Vindhyas. In the 7th century Hiuen Tsiang describes it as bounded by Ujjain on the north, Mahārāshtra on the west, by Orissa on the east, and by Andhra and Kalingā on the south. It thus lay in Chhattīsgarh about the upper valley of the MAHANADI and its tributaries, from Amarkantak on the north to Kānker on the south, and may at times have extended west into the Mandlā and Bālāghāt Districts, and east into Sambalpur. From about 1000 the tract was absorbed in a new kingdom called Chedi (eastern). (*For northern Kosala see* Lassen, *Ind. Alt., Vol. I, page* 129, *and authorities quoted there;* Rhys Davids' *Buddhist India*, passim. *For southern Kosala see* Cunningham, *Archæological Survey Reports, XVII, page* 68, *and map, and Coins of Mediæval India, page* 73.)

Madhya Desa (the middle country).—At present this name is not infrequently used by Hindus for the Ganges and Jumna DOAB. It had a more extended meaning formerly, and in early times probably included the tract lying between the place (at Bhatner in Rājputāna) where the SARASWATI disappears on the west, and Allahābād on the east, stretching to the Himālayas on the north and the Vindhyas on the south.

* To appear also in the Central Provinces B.

United Provinces, and it presents an almost unbroken sheet of cultivation, varied only by ravines on the banks of the Jumna and other rivers and occasional patches of barren *ūsar* (saline) plain or *dhāk (Butea frondosa)* jungle. The contrast between this condition and the state of the Doāb at the end of the 18th century, is striking. In 1794-95 Mr. Twining, a servant of the Company, travelled from Fatehgarh to Agra, Muttra, Delhi, and back across Alīgarh, and described most of the tract as a sandy waste. Although before British rule famine repeatedly devastated this area, canal irrigation has now rendered the greater part of it safe. In 1896-97 the peasants of the upper Doāb were able to hold stocks of grain, while almost every other part of the United Provinces was importing. The Fatehpur branch of the Lower Ganges Canal, opened in 1898, will do much for the three Districts nearest the confluence of the Ganges and Jumna. Cawnpore, the largest manufacturing town in the United Provinces, which is also an important collecting and distributing centre, Hāthras, Meerut, Sahāranpur, Allahābād, and Etāwah are the chief commercial centres. Smaller thriving towns are numerous, and a network of railways crosses the area in every direction and provides excellent means of communications with all parts of India. The Doāb, though it has lain in the tract of all invaders from the north, was never a historical entity, and the history of its different portions will be found in the accounts of the Districts composing it.

Hindustān.—A vaguely-defined area, sometimes applied to the whole of India north of the Vindhyas, in contradistinction to the Deccan *(Dakshin*, south) which lay south of them. Hindustān, in this sense, was bounded on the north by the Himālayas, on the east by Assam, on the south by the Vindhyas, and on the west extended into the Punjab and Rājputāna. It accordingly comprises the administrative tracts forming the Lieutenant-Governorships of Bengal, and the United Provinces, together with the eastern portions of the Punjab and Rājputāna, and perhaps the western Districts of Assam. In Muhammadan histories the term is used for a smaller area including the east of the Punjab and Rājputāna and the greater part of the United Provinces. Thus Abul Fazl treats the province of Lahore as outside of Hindustān. During

the 18th and first half of the 19th centuries the term Hindustān was loosely employed to include the whole of India. The name means the "place of the Hindus," and it has been applied to the *lingua franca* of northern India, called Hindustāni or Urdū, which is a dialect of Western Hindī, with a greater or less admixture of Arabic and Persian vocables, according to the taste of the speaker.

*Kosala (from *Kushala*, happy).—Two tracts of this name are known in Hindu literature. That north of the Vindhyas corresponded roughly to Oudh. In the Rāmāyana it is the country of Dasaratha and Rāma, with its capital at Ajodhyā, and it then extended to the Ganges. It was part of the holy land of Buddhism, and in Buddhist literature kings of Kosala also ruled over Kapilavastu. Srāvastī, the site of which is disputed, was the capital of Uttara Kosala, the northern portion over which Lava, son of Rāma, ruled after his father's death. Southern or great Kosala (Dakshina or Mahā Kosala), fell to Kusa, the other son of Rāma, and lay south of the Vindhyas. In the 7th century Hiuen Tsiang describes it as bounded by Ujjain on the north, Mahārāshtra on the west, by Orissa on the east, and by Andhra and Kalingā on the south. It thus lay in Chhattīsgarh about the upper valley of the Mahānadi and its tributaries, from Amarkantak on the north to Kanker on the south, and may at times have extended west into the Mandla and Bālāghāt Districts, and east into Sambalpur. [illegible] the tract was absorbed in a new kingdom called [illegible]. (*For northern Kosala see* Lassen, *Ind.* [illegible] *and authorities quoted there;* Rhys Davids' [illegible] passim. *For southern Kosala see* C[illegible] *Survey Reports, XVII, page 68, and* [illegible] *val India, page* 73.)

Madhya Desa (the middle country).—[illegible] not infrequently used by Hindus [illegible] Doab. It had a more extended [illegible] early times probably included [illegible] (at Bhatner in Rājputāna) [illegible] on the west, and [illegible] Himālayas on the [illegible]

* To appear [illegible]

This was the area within which Brāhmanism had its rise and full development, and it is still regarded as a holy land of Hinduism. But according to Varāha Mihira, the Sanskrit geographer of the 6th century A.D., the Madhya Desa extended as far west as Mārwār, while the Yāmunas, or people living on the banks of the Jumna, were partly in this and partly in the northern country, and the Vindhyas are wholly excluded. Al Birūni has explained it as the country lying round KANAUJ.—(*Lassen, Ind. Alt., Vol. I, page* 92. *Fleet, Ind. Ant.*, 1893, *page* 169.)

* **Magadha.**—This ancient kingdom is referred to both in the Rāmāyana and in the Mahābhārata. The greater part of Magadha proper was situated in Bihār south of the Ganges, with its capital first at Rājagriha and afterwards at Pātāliputra (Patna); but it also extended into the east of what is now the United Provinces, where it marched with the kingdom of Benares. Magadha was the scene of many episodes in the life of Gautama and is important in the history of Buddhism. About the same period Mahāvīra founded the cognate sect of the Jains. At the time of Alexander's invasion the kings of Magadha appear to have been recognised as paramount over the greater part of the United Provinces as well as over Bengal. Their dominion was still further extended by Chandra Gupta Maurya and his grandson, the famous Asoka. The Maurya dynasty declined after Asoka's death, and Magadha was conquered about 150 B.C. by a king of Kalingā, but towards the end of the 4th century A.D. a new line of Gupta kings renewed the glories of Magadha, and gradually spread westward to Allahābād, Kanauj, and even to Gujarāt, while Samudra Gupta temporarily conquered part of the Deccan. When the Gupta empire broke up early in the 6th century, Magadha was subdued for a time by the Chālukya king Kīrttivarman (I), but again became a small kingdom, still ruled by an eastern branch of the Guptas. Inscriptions give the names of eleven kings, the eighth of whom was reigning in 672. The kingdom was absorbed in the dominions of the Pāl kings of Bengal in the 9th century. In 1197 the last of the Pāls was dethroned by Muhammad Bakhtiār Khiljī, and the kingdom of Magadha was included in the empire of the slave kings of Delhi. Magadha formed part of the Jaunpur kingdom for a

* To appear also in the Bengal Provincial volume.—*R. B.*

time, and its later history merges in that of Bihār. Varāha Mihira, the Sanskrit geographer of the 6th century A.D., mentions Magadha as situated in the eastern division of India between KOSALA and MITHILA (Tirhut). The kingdom has given its name to a tribe of Brāhmans called Māgadha *or* Sākaldwīp Brāhmans, and also to the Magahiyā sub-division of the low caste Dom. Like other kingdoms east of MADHYA DESA, its inhabitants were held in low esteem and this feeling has survived to the present day.—(Lassen *Ind. Alt., Vol. I, pages* 135 *and* 602; Pargiter, *J.A.S.B.*, 1897, *p.* 86; McCrindle, *Invasion of India by Alexander*, *pp.* 36, 56, 380, *and* 404-8; Fleet *Ind. Ant.*, 1893, *pp.* 170, 183, *and Gupta inscriptions, pages* 200—220; Duff, *The chronology of India, passim.*)

* **Mewāt.**—An ill-defined tract lying south of Delhi, and including part of the British Districts of Muttra and Gurgaon, and most of the Alwar and a little of the Bharatpur States. It takes its name from the Meos, who appear to have been originally the same as the Mīnās of Rājputāna, but say that they have not intermarried with these since the time of Akbar. The origin of the name Meo is disputed, some deriving it from Mewāt, which is said to be the Sanskrit *mīnā-vatī*, rich in fish, while the Meos themselves derive it from "*maheo,*" a word used in driving cattle. Mīnā is said to come from Amīna Meo or pure Meo, a term applied to those who did not become Musalmāns. The Hindu Meos and Mīnās claim to be Rājputs, but are not so treated by other Hindus, and it is certain that outsiders have often been admitted in the past. Their tribal constitution varies in different places. The Muhammadans call themselves Mewātis. In 1901 there were 10,546 Meos and Mīnās in the United Provinces, chiefly in Meerut (916), Bulandshahr (4,745), Agra (906), Bijnor (1,263), Budaun (884), and Morādābād (1,070), and 51,028 Mewātis, chiefly in the Meerut (22,576), Agra (7,316), and Rohilkhand (16,129) Divisions. The large number in Rohilkhand, which was never part of Mewāt, is explained by a migration owing to famine in Mewāt in 1761-62. The Meos of Rājputāna numbered 168,596 or nearly 2 per cent. of the total population. All are Muhammadans but 6, and they are found in 13 out of 18 States.

* To appear also in the Rājputāna Provincial volume.—*R. B.*

In Alwar there were 113,142 or over 13 per cent. of the total, and in Bharatpur 51,546 or 8 per cent. The Khānzāda division is still represented by 9,317 members, most of whom are in Alwar. The Mewātīs have preserved many Hindu customs, such as observing exogamous rules and Hindu festivals.

According to tradition the Meos first crossed the Jumna in the period of anarchy which succeeded the invasion by Mahmūd Ghaznivid in 1018-19. The great Rājput clans of Bulandshahr and Etāwah state that they dispossessed the Meos at the direction of Prithwī Rāj of Delhi towards the end of the 12th century. Throughout the period of Muhammadan rule the Meos were the Ishmaelites of their own country and of the upper DOAB, though harried again and again by the kings of Delhi, from Nāsir-ud-dīn Mahmūd (1259) to Bābar (1527). During the troubled times of Tīmūr's invasion (1398) Bahādur Nāhar, who founded the division of Mewātīs called Khānzādas, members of which were, for many years, rulers of Mewāt, was one of the most powerful chiefs in this part of India. Under Akbar the tract was divided between the *sarkārs* Alwar and Tijāra in the *Sūbah* of Delhi. The rule of the Mewātīs was subsequently challenged by the Jāts, who had already risen to importance before the death of Aurangzeb in 1707, and consolidated their power in southern Mewāt in the first half of the 18th century, and from this time the history of Mewāt merges in that of ALWAR and BHARATPUR. The Meos and Mewātīs, however, retained their character for turbulence; and towards the end of the 18th century travelling in the upper and central Doāb was unsafe owing to well-armed bands of Mewātī horsemen. They gave much trouble to Lord Lake's forces in the Marāthā war of 1803, while in the Mutiny they and the Gūjars were conspicuous for their readiness to take advantage of disorder.—(Crooke, *Tribes and Castes of North-Western Provinces and Oudh, Vol. III., page* 485 et seq., *where full authorities are quoted.)*

Physical aspects. * **Oudh** *(Awadh)*.—A British Province, forming part of the UNITED PROVINCES, lying between 25° 34′ and 28° 42′ N. and

*This article deals only with matters in which Oudh differs from the rest of the United Provinces, to the article on which reference should be made for other details.

between 79° 41′ and 83° 8′ E. Area, 23,966 square miles. Population (1901), 12,833,077. The name is a corruption of the name of the ancient city of Ajodhyā (Ayodhyā), which became the seat of a local governor under the early Muhammadan rulers. Oudh is bounded on the north by the independent State of Nepāl, and on all other sides by the Province of Agra. The Gorakhpur and Benares Divisions lie on the east, the Bareilly and Agra Divisions on the west, and the Allahābād Division on the south. The river Ganges forms the greater part of the south-western boundary. Oudh includes portions of two of the great natural divisions of upper India. The three northern Districts of Kherī, Bahraich, and Gondā stretch up into the submontane tract lying below the Himālayas, while the remainder of the Province lies in the central portion of the great Gangetic plain. The northern boundary of Bahraich and Gondā lies for sixty miles along the low hills which mark the first rise above the level of the Gangetic plain, but the submontane tract or *tarai* is chiefly distinguished from the plain by its greater slope and excessive moisture due to a heavier rainiall and the drainage from the outer ranges of the Himâlayas. In the northern portion of the Province there are large areas of forest land. Geologically the whole of Oudh is classified as Gangetic alluvium. No rock or stone is found except *kankar* (nodular limestone), which is used for metalling roads. Gold is obtained in very small quantities by washing sand in the rivers in the north of the Province. Salt was extensively manufactured during native rule; but the industry has been prohibited for many years. The flora is described in the article on the United Provinces.

The country slopes from north- [illegible]

[illegible] Gogra and Ganges, [illegible] Bengal. The Province may thus be divided into two tracts separated by the Gogra. On the north-east the Districts of Bahraich and Gondā form a triangular area, a portion of which is drained by the Rapti, with a course roughly parallel to that of the Gogra, into which it falls in the Gorakhpur District, while the greater part of the drainage is carried directly into the river. The rest of the Province is roughly [illegible] and lies between the Gogra and the Ganges. [illegible]

of this portion flow the GUMTI and its southern tributary, the SAI, which carry off most of the drainage and fall into the Ganges. It is only in the northern Districts of Kherī and Sītāpur that the Gogra obtains an increase to its volume, from this tract, through the SARDA and its branches. The numerous shallow ponds or *jhīls*, of which the DAHAR lake is the most important, form a more valuable source of water for irrigation than the rivers.

Scenery. The general aspect of the Province, except during the hot season when the land is bare, is that of a rich expanse of waving and very varied crops, interspersed by numerous ponds or shallow lakes, mango groves, and bamboo clumps. The villages lie thickly scattered, consisting of low cottages, surrounded by patches of garden land. The dense foliage of the mango plantations mark the site of almost every little homestead. *Mahuās (Bassia latifolia)*, plantains, guavas, and jack-fruits add further beauty to the village plots. The scenery, as a whole, has few claims to attention, except so far as trees and water may occasionally combine to produce a pleasing effect; but the varied colouring of the ripe crops, the sky, and the groves or buildings, often charm the eye under the soft haze of a tropical atmosphere.

HISTORY. Legends. The legendary accounts of Oudh centre round AJODHYA or Awadh, the city from which the Province takes it name. This was the capital of Kosala, the kingdom of Dasaratha of the solar race, father of Rāma, from which the hero went forth to exile with his wife, Sītā and brother, Lakshmana, and to which he returned in triumph after the defeat of Rāvana, king of Ceylon. Many places in Oudh are visited by pilgrims on appointed days as connected with the story. After the death of Rāma the kingdom was divided into northern Kosala, ruled by his son, Lava, at Srāvastī, and southern Kosala, ruled by another son, Kusa. No approximate date can be assigned to whatever may be historical in the story of the Rāmāyana.

Buddhism. In the Buddhist literature of the centuries immediately before the Christian era Srāvastī figures as an important place, at which Gautama spent many years. Its exact site is disputed, but the kingdom certainly included part of Oudh north of the Gogra. The rest of the Province still preserves many remains of the Buddhist faith, which have not been thoroughly examined. An inscription of the 12th or 13th century found at SET MAHET in

the Gonda and Bahraich Districts shows that Buddhist tenets were held as late as that date, but the Chinese pilgrims in the 5th and 7th centuries lament that the faithful followers were even then few

Little more is known of Oudh up to the rise of the Guptas of Magadha, who gradually extended their dominion in the 4th century A D , westward from Patna, and according to the Puranas took Saketam or Ajodhya The once populous tract north of the Gogra relapsed into jungle, and the ancient city of Sravasti was deserted by the seventh century Mediaeval period

According to tradition the Tharus who are still found in the *tarai* descended from the hills in the 8th or 9th century, and legend tells of a line of Somvansi kings, the last of whom, Suhil Deo, fought with Saiyid Salar In these dark ages, while the Rajput clans were rising into importance, western Oudh must have been subject to the rulers of Kanauj or Katehr, and eastern Oudh to Benares, till this was absorbed in the great kingdom of Kanauj

The raid of Mahmud Ghaznivid, in 1018 19, extended from Kanauj through part of southern Oudh and there are many tombs in the Province, said to be those of warriors who fell in the expedition of his canonized nephew, Saiyid Salar, the tomb of the saint himself being at Bahraich It was nearly two hundred years, however, before Muhammad Ghori's general, Kutab-ud-din, finally defeated Jai Chand of Kanauj in 1194, and thus broke up the last great Hindu kingdom *Not* long afterwards the Bhars, a dark-skinned aboriginal race still existing as a low caste, rose into importance in southern Oudh and in Bundelkhand, but were crushed in 1247, and the history of the Province for nearly 500 years is a part of the general history of the kingdom of Delhi There were local governors at Ajodhya, Bahraich, Sandila, Manikpur, and other places, who often found it difficult to maintain their authority, for in Oudh as in Bundelkhand, the Hindus were never thoroughly subdued as they were at an early date in the Doab, and later in Rohilkhand In 1 [illegible] K[illegible] [illegible] [illegible] governor of Kanauj Oudh, Kara, and Jaunpur, [illegible] assumed independence For [illegible] than 80 years [illegible] formed part of the great [illegible] kingdom of [illegible] Early Muhammadan period

shared in the struggle with Delhi, which ended with the fall of Jaunpur in 1478. In the south-western corner Tilok Chand, head of the Bais Rājputs, gradually rose to power and became the greatest noble in Oudh, with a large tract owning his sway, known as BAISWARA.

The Mughals. After Bābar had gained a footing in Hindustān by the victory at Pānīpat in 1526, and had advanced to Agra, the defeated Afghān house of Lodī still occupied the central Doāb, Oudh, and the eastern Districts of the present United Provinces. In 1527 Bābar, on his return from Central India, defeated his opponents in southern Oudh near Kanauj, and passed on through the Province as far as Ajodhyā, where he built a mosque in 1528, on the site renowned as the birth-place of Rāma. The Afghāns still remained in opposition after the death of Bābar in 1530, but were defeated near Lucknow in the following year.. The Mughal power was, however, still far from secure, and Sher Khān (afterwards Sher Shāh), the new leader of the Afghāns, gradually increased his influence till in 1540, by his victory at Kanauj, he compelled Humāyūn to leave India. For five years the country was at rest, but on the death of Sher Shāh in 1545 the Afghān power began to fall to pieces, and Humāyūn returned in 1555. Under Akbar a redistribution of the empire into provinces took place. Oudh was then formed into a *Sūbah* or province containing 5 *sarkārs* or divisions and 38 *mahāls* or *parganas*. The provincial forces consisted of 7,640 cavalry, 168,250 infantry, and 59 elephants. Awadh or Ajodhyā was then one of the principal cities in India, and Lucknow was rising in importance. Akbar's government was not established without a struggle, and in 1565 the *jāgīrdārs* Iskandar Khān of Ajodhyā and Khān Zamān of Jaunpur revolted and took Lucknow, but were soon defeated. It is noticeable that in the list of Akbar's grandees only three belonged to Oudh, one of whom was a Hindu, the celebrated Todar Mal.

[Ei]ght[ee]nth [ce]ntury. The rule of the Mughal emperors was uneventful for Oudh during the next 150 years, when the chief centre of interest lay in the Deccan. The increase in local prosperity may be judged from the rise in revenue, which was 50 lakhs in 1594 and 83 lakhs about 1720, while the measured area had increased from 9,933 square miles to 18,577. In the struggles for the

succession to Shāh Jahan and to Aurangzeb Oudh played no important part, though the Hindu chiefs took advantage of the disorder to assert partial independence. As the Mughal empire fell to pieces small States grew up, the rulers of which obtained practical independence.

Among these Oudh took the first place, and its importance dates from the appointment about 1724 of Muhammad Amin, originally a merchant from Khorāsān, to be Nawāb of Oudh with the titles of Saādat Khan and Burhān ul mulk. The new governor was a great soldier, who soon reduced those of the local Hindu chieftains who opposed him. Saādat Khān built a house a few miles west of Ajodhyā, round which grew up the new town of Fyzābād, but most of his time was spent elsewhere, fighting at one time against the Marathās and at another against Nadir Shāh, or fulfilling the duties of his office as Wazir of the empire. Deputies managed his two provinces of Oudh and Allahābād, and on the whole ruled well under his guidance. Saada Khan

He was succeeded in 1739 by his nephew and son in law, Safdar Jang, who had been his deputy at Fyzābād, and was an able statesman. Under both these rulers the province enjoyed great prosperity, and wells, forts, and bridges were built. In 1745 Safdar Jang quarrelled with Ali Muhammad, who was then consolidating the Rohillas on the western boundary of Oudh, and thus commenced the long struggle which was to end in the addition of Rohilkhand to Oudh. When the old Nizām of the Deccan died in 1748, he was succeeded in his office as Wazir of the empire by Safdar Jang. Then followed a war with the Pathān chief of Farrukhābād, which resulted in Safdar Jang's invoking the assistance of the Marāthās, who afterwards became a menace to his own province. The immediate result, however, was that the Farrukhābād territory became practically dependent on Oudh. In 1754 Ahmad Shāh of Delhi deprived Safdar Jang of his office as Wazir, and aided by the Marāthās successfully drove him back to Oudh when he attempted, with the help of the Jāts, to seize Delhi. In the same year Safdar Jang died and was succeeded by his son, Shujā ud-daula, who removed the capital for a time to Lucknow which had first become a considerable town in the time of Sher Shāh. He was engaged almost at once in conjunction with the Safda Jang Shuj daula

Rohillas in repelling the Marāthās, who had been sent by the infamous new Wazīr, Ghāzī-ud-dīn, against Najīb Khān and were now looked on as a common enemy of the States of Hindustān. When the prince Alī Gauhar (afterwards Shāh Alam II) escaped from Delhi he was received by Shujā-ud-daula, and advised to proceed against Bengal, where the British power was increasing. In 1761 Shujā-ud-daula sided with the other Muhammadan chiefs in the great struggle at Pānīpat, and soon afterwards Shāh Alam gave up his fruitless contests with the English, and retired to Allahābād. Here he was under the control of Shujā-ud-daula, who was appointed to the office of Wazīr, which now became hereditary in his family. After the massacre at Patna in 1763, Mīr Kāsim and his lieutenant, Sumrū, fled to Oudh and were joined by the emperor and the Wazīr, but the allied troops failed to take Patna and were completely defeated by the British at Buxar in 1764. Shāh Alam had taken no part in the fighting, and went over to the British while Shujā-ud-daula fled through Fyzābād and Lucknow to Bareilly. He obtained some help from the Pathāns and even from the Marāthās, and again faced the British in 1765 near Jājmau in Cawnpore District, but suffered defeat a second time, and was compelled to sign away the whole of his territory. Besides the grant of civil power in Bengal, the British were to obtain the greater part of the present Benares Division which had gradually come into the power of Balwant Singh, Rājā of Benares, and Shāh Alam was to be placed in possession of the whole of the rest of Oudh. The Court of Directors, however, refused to sanction this arrangement, and everything was restored to the Wazīr, except the Districts south of the Ganges (now Cawnpore, Fatehpur, and Allahābād) which were made over to the emperor. The Wazir also undertook to pay the British 25 lakhs down and 25 lakhs annually.* About this time Shujā-ud-daula removed his court to Fyzābād, where he built a fort and greatly increased the prosperity of the city. In 1769 the Marāthās returned to Hindustān and assumed a most threatening attitude. Two years later, the emperor disregarded the advice of the British and joined them, leaving Allahābād in charge of Shujā-ud-daula.

* A native historian describes the annual tribute as five annas in the rupee, which indicates a revenue of 80 lakhs.

The danger to Oudh and to the British was imminent, and when the Marāthās extorted a grant of the Allahābād territory from Shāh Alam, British troops were sent to occupy Chunār and Allahābād. The Marāthās pressed on, and in 1773 Sir Robert Barker marched to guard the frontiers of Oudh and Rohilkhand under a guarantee of a lakh of rupees a month. British troops aided in driving the Marāthās out of Rohilkhand, and later in the year Hastings met Shujā-ud-daula at Benares. The result was the cession to the Wazīr of the Allahābād territory, which was taken from the emperor because of his grant of it to the Marāthās, while the Wazīr paid the English 50 lakhs and undertook to pay 25 lakhs a year besides the cost of a brigade of British troops to be stationed within the borders of his territories. A permanent British Resident was now appointed for the first time at his court, and these arrangements may be said to mark the conversion of Oudh into a State dependent on the Company. Shujā-ud-daula now made fresh efforts to reduce the Rohillas, who had been intriguing with the Marāthās, and had refused to pay for the help given them in 1772. The Council at Calcutta hesitated, but finally sent troops, and in 1774 Rohilkhand was added to Oudh with the exception of the present Rāmpur State, which was left to Faiz-ullah.

Shujā-ud-daula, who was a popular ruler, died in 1775 and was succeeded by his son, Asaf-ud-daula, who was incapable and inclined to debauchery. He was at once required to cede to the Company the *zamīndāri* of Chet Singh, who had succeeded Balwant Singh of Benares, and to pay more for British troops. His personal extravagance was great, and he demanded large sums from his mother, the Bahu Begam. The court was then finally removed to Lucknow, and Fyzābād began to decline, while most of the State suffered from his failure to exercise any authority in the government and from the quarrels of his subordinates. In 1781 a new treaty was made by Hastings, under which the British troops in Oudh were reduced to one brigade and one regiment, and the Nawāb was authorized to resume *jāgīrs* or grants of land. Asaf-ud-daula took advantage of this to confiscate the *jāgīrs* of his mother and grandmother, and by imprisoning their chief officers extorted large sums of money from them. Warren Hastings' share in these Asaf-ud-daula

transactions was one of the counts in his subsequent impeachment. His approval of the *resumption of the jāgīrs* was, however, amply justified by the behaviour of the Begams who successfully raised the whole of eastern Oudh against the British when the *émeute* at Benares took place in 1781.*

Saādat Alī Khān.

Asaf-ud-daula died in 1797 and was succeeded, after a short interval, during which his reputed son, Wazīr Alī, ruled, by his half-brother, Saādat Alī Khān, who concluded a treaty ceding to the Company the fort of Allahābād and promising an annual subsidy of 76 lakhs, while the British in return undertook the entire defence of Oudh. Four years later, after the threatened attack by Zamān Shāh, grandson of Ahmad Shāh Durrāni, Rohilkhand and other parts of the Oudh territories were in a state of anarchy, and it was feared that Sindhia would seize the opportunity to attack the State. The Nawāb, therefore, executed a fresh treaty giving up the so-called Ceded Provinces,† which left him with the area now called Oudh, surrounded on all sides by British territory except on the north, where the Gurkhas ruled. Saādat Alī Khān died in 1814, having been a good ruler compared with his predecessor. In particular he attempted to reform the revenue administration, one of his chief difficulties being the resumption of grants made by previous rulers. At his death his treasury contained 14 crores of rupees, though all his establishments had been paid up to date and there were no debts.

Later rulers.

The history of his successors is a miserable record. The most redeeming feature of the period is the occasional employment as minister of the capable Mahdī Alī Khān, who had been trained under Saādat Alī. Ghāzī-ud-dīn Haidar, son of Saādat Alī, was allowed to assume the title of king in 1819, and was the first to strike coin in his own name. He spent four crores of the treasure left by his father and was succeeded in 1827 by his son, Nasīr-ud-dīn Haidar, a debauchee, who aped English manners and left only 70 lakhs when he died in 1837. An attempt was then made to place a putative son, named

---

* Hastings' Insurrection at Benares, Roorkee, 1853, Appendix, p. 8.

† The present Gorakhpur Division, most of the Bareilly Division, and the Districts of Allahābād, Cawnpore, Fatehpur, Etāwah, Mainpurī, Etah, and Farrukhābād, south ... the Tarai parganas of Kumaun Division.



Munnā Jān, on the throne, but a few of the Company's soldiers were sufficient to quell the disturbance that arose, and the uncle of the late king succeeded as Muhammad Alī Shāh. He died in 1842 and was followed by his son, Amjad Alī Shāh (died 1847). In 1850 it was estimated that Wājid Alī Shāh, the last king, was spending more than 20 lakhs annually over and above the whole income of the State, while the allowances of his officials and his family were greatly in arrears. Muhammad Alī Shāh had made some attempts at reform in the administration of justice and the revenue system, but Mahdī Alī Khān, whom he recalled for the purpose, was an old man, and nothing came of them.

Annexation. Open resistance to the king's officials and defiance of all law and order were the ordinary rule. Before 1855 chronic anarchy and oppression had reduced the people of Oudh to extreme misery, and reform by its native rulers had long been hopeless. In 1828 the Resident had reported that only British assumption of administration could save the country from ruin, and in 1834 the Court of Directors had authorized this step; but it was averted for the time by the improvement effected by Mahdī Alī. In 1856 things had come to such a pass that a treaty was proposed to the king, which provided on very liberal terms to him personally and to his heirs, for the cession of his State to the British Government. The king, however, refused to sign it, and accordingly in February 1856 the British Government assumed to itself the government of Oudh, exclusively and for ever. A provision of 12 lakhs a year was offered to the king, which he accepted in October 1859, and separate provision was sanctioned for his collateral relatives. Wājid Alī Shāh was allowed to retain the title of king of Oudh till his death in 1887, when the title ceased absolutely, and the pecuniary allowances were reduced. On its annexation, Oudh was constituted into a Chief Commissionership, and organized on the model of administration which had been adopted in the Punjab eight years previously. Troops had been moved in, and one British Infantry regiment held Lucknow, while native regiments garrisoned Sītāpur, Fyzābād, Sultānpur, Bahraich, Daryābād, Salon, and Secrora. The year passed on the whole quietly.

Mutiny. The annexation of the Province had, however, caused considerable discontent among important classes. The *talukdārs* feared, with more or less reason, the loss of position and estate. The sepoys, who were largely recruited from the Province, anticipated the curtailment of the exceptional privileges which they had enjoyed while Oudh was still native territory. The rebellion began in Oudh a fortnight after the Mutiny at Meerut gave the signal for a general rising. In March 1857 Sir Henry Lawrence had assumed the administration at Lucknow; and on the 30th of May five of the native regiments broke into mutiny. The remainder of the events connected with the siege and recovery of the capital have been narrated in the article on LUCKNOW CITY, and need only be briefly mentioned here. For some time the *talukdārs*, with few exceptions, took no active part in the revolt; several of them did noble service in saving the lives of fugitives; but the native garrisons of the out-stations followed the example of their comrades at Lucknow; and by the middle of June the Residency at Lucknow was the only spot in the Province under the British flag. On 4th July Sir Henry Lawrence died from wounds caused by a shell. For twelve weeks the little Lucknow garrison was besieged by an overwhelming body of mutineers till relieved by Outram and Havelock on the 25th of September. In spite of this reinforcement, the British force found itself too weak to fall back upon Cawnpore, and the siege continued till raised by Sir Colin Campbell on the 17th of November. The women and children were then escorted to Cawnpore by the main body, while General Outram held the outlying post of the Alambāgh with a small garrison. Lucknow itself remained in the hands of the rebels, who fortified it carefully under the direction of the Begam* of Oudh. Early in 1858 General Franks organized a force at Benares for the reconquest of the Province, and cleared the south-eastern Districts of rebels. At the same time Jang Bahādur, the Minister of Nepāl, assisted the British with a body of 8,000 Gurkhas, and twice defeated the insurgents with great slaughter. On the last day of February Sir Colin Campbell crossed the Ganges and marched on Lucknow. Occupying the Dilkushā palace on 5th March,

* Wife of Wājid Alī Shāh, the last king, and mother of Birjis Kadar, who assumed the throne.

he effected a junction with Franks and the Nepalese army, and began the siege the next day. The town was captured after a desperate resistance, and the work of reorganization of the Province began. Early in April Sir Hope Grant marched with a column north-west of Lucknow, and soon afterwards General Walpole passed through Hardoī. In May the rebels who threatened the Cawnpore road were dispersed, and in June the Begam's army, which was threatening Lucknow, was defeated. General Grant marched to Fyzābād in July and then south to Sultānpur, while a force co-operated from Allahābād. The military police, which had been reorganized, and a Sikh contingent under Rājā Randhīr Singh of Kapūrthala did valuable service, and when the Commander-in-Chief took the field in November 1858 the rebellion collapsed at once, and Oudh was pacified by the end of the year.

Archæ-logy.

Oudh is rich in ancient sites, but none of these has been regularly explored, except the mounds at SET MAHET in the Gondā and Bahraich Districts, which yielded important Buddhist and Jain remains. Opinions are divided as to whether this is the site of the ancient city of Srāvastī. Popular belief associates many places with the aboriginal Bhars, of whose history little is known. At Ajodhyā, which is connected with the legendary history of the Solar race, the Hindu temples are all of modern date. The early Muhammadan period is chiefly represented by the tombs of those who fell in the religious incursion of Saiyid Sālār, whose tomb at Bahraich was built early in the 13th century, or 200 years after the death of the saint. The mosque of Bābar at Ajodhyā, and the remains of a few buildings erected by the Sūri Pathāns, may also be mentioned. The Mughals have left few memorials in the Province, and the chief buildings now standing are those erected by the Nawābs and kings of Oudh in the last quarter of the 18th and first half of the 19th centuries, at FYZABAD and at LUCKNOW. The earlier buildings of this period are not unpleasing; but the style degenerated, and the later edifices are vulgar in the extreme.

Popula-tion. Densit

Oudh has probably the densest rural population of any equal area in the world. The first census taken in 1869 returned a total population of 11·2 million, spread over 24,000 square miles, yielding an average of 468 persons to [illegible] le;

but defects in the procedure probably caused the figures to be exaggerated. In 1881 the population was returned at 11·4 million, the central Districts having suffered from famine. Ten years later there had been an increase to 12·7 million, and all parts of the Province showed an increase in prosperity. The famine of 1896-97 caused distress in southern and western Oudh, especially in the Hardoī and Rāe Barelī Districts, but the total population increased to 12·8 million in 1901. Statistics of the population in 1901 of each of the 12 Districts included in the two Divisions of Lucknow and Fyzābād will be found in the article on the United Provinces. The density in that year was 535; but in single Districts the figure varied from 812 in Lucknow and 718 in Fyzābād to 306 in Kherī. Central Oudh is the most thickly populated portion, while the submontane Districts are less crowded, but are filling up rapidly. Emigration to distant parts of India and to the colonies is becoming considerable. The Partābgarh and Rāe Barelī Districts in southern Oudh send the largest numbers to Assam, while the northern Districts of Gondā and Fyzābād supply emigrants to the colonies. The largest city in the Province is Lucknow, which has a population of 264,049, including the cantonments, and is larger than any city in India except the three Presidency towns and Hyderābād. Fyzābād (with Ajodhyā) has a population of 75,085, but there are only 3 other towns, Bahraich (27,304), Sītāpur (22,557), and Shāhābād (20,036), whose population exceeds 20,000. The absence of large cities and towns is remarkable, and the agricultural population forms nearly 73 per cent. of the total.

Religion. The proportion of Hindus and Musalmāns to the total population in Oudh is much the same as in the Province of Agra, though the Musalmāns are numerically a little weaker and are found to a larger extent in towns. Out of 1·7 million of Musalmāns more than 62,000 are Shiahs, the largest numbers being found in Lucknow city, where the sect of the former kings still has many followers.

Language. Except in the Hardoī District, where a dialect of Western Hindī is spoken, the language of the whole of Oudh is the Awadhī dialect of Eastern Hindī, an old form of which was used by Tulsī Dās, the author of the vernacular version of the

Rāmāyana, which has been termed the Bible of upper India. The dialect is still a favourite vehicle for verse, as its forms are more suitable to the indigenous metres than Urdū or Hindustāni, which is used for prose or in conversation by educated people.

The caste system will be described in the article on the United Provinces; but in rural tracts more respect is paid to the higher castes than in the Doāb, and the prejudices of the Brāhmans and Rājputs against touching a plough are recognised by their landlords, who allow them privileged rates of rent. Brāhmans number 1·4 million and Ahīrs and Chamārs each 1·3 million. Among the cultivating classes may be mentioned the Kurmīs (·9 million), and Lodhas and Muraos (each ·4 million), and among the lower castes the Pāsīs, who number nearly a million, and are largely employed as toddy-drawers, *chaukīdārs* and labourers. Caste, tribe, and rac

There were no metalled roads in Oudh at the time of annexation in 1856, except that from Lucknow to Cawnpore. After the pacification in 1858 the first lines of communication to be taken up were roads from Allahābād to Fyzābād, and from Lucknow to Fyzābād. With the extension of railways the roads have become of local importance only. The main line and a loop of the broad-gauge Oudh and Rohilkhand State Railway pass from north-west to south-east through Oudh, south of the Gogra, while an important branch connects Lucknow and Cawnpore, and a line from Allahābād through Partābgarh and Sultānpur to Fyzābād has recently been opened. The submontane Districts are well served by the narrow-gauge Bengal and North-Western (Company) line and the Lucknow-Sītāpur (State) Railway. Commu cations

Oudh remained a separate administration until February 1877, when the offices of Chief Commissioner of Oudh and Lieutenant-Governor of the North-Western Provinces were united. Since 1902 the title of Chief Commissioner has merged in that of Lieutenant-Governor of the United Provinces. In revenue matters the Chief Commissioner remained the principal revenue authority till after the passing of Act XX of 1890, under which the control of the North-Western Provinces Board of Revenue was extended to Oudh. For most administrative purposes there is now no difference between the Provinces of Oudh and Agra. The principal exceptions to this are in the land Admini tration

especially in its relation to tenures, the rent law, and the judicial system, each of which will now be described.

AND EVENUE.

On the acquisition of what is now the Province of Agra the policy adopted was to set aside the officials who, during the decline of Mughal power, had acquired *quāsi*-proprietary rights and a hereditary position. The official *zamīndārs* of Bengal had been tried and found wanting, and an attempt was made to engage for the payment of revenue with the actual occupiers of the soil. In several Districts a double proprietary right was found, the holder of the superior right being called a *talukdār*. The relation of the *talukdār* to the subordinate proprietor was, however, largely a temporary arrangement due to the disturbed state of the country, and the subordinate proprietors were therefore invested with full proprietary rights, subject, in some cases, to the payment of an allowance to the *talukdārs*, who were only confirmed in their ancestral estates. The same policy was applied to Oudh on its annexation, though the circumstances were not identical. The *talukdārs* then held 23,543 villages out of 36,721 in the Province. A summary settlement was made in 1856, which recognised the rights of the *talukdārs* in only 13,640 villages with a revenue of 35 lakhs and set them aside in 9,903 with a revenue of 32 lakhs. The Mutiny broke out in May 1857, and on the restoration of order in 1858 the policy described above was completely reversed. In the first place the proprietary right in practically all the land of the Province was declared to be confiscated on account of rebellion. This proclamation was severely attacked in India and in England, but was justified on the ground that the change in policy required the cancellation of existing rights. Only five* *talukdārs* had remained loyal; their rights were maintained and they were subsequently rewarded with large additional grants and a permanent settlement. The other *talukdārs* and landholders were called on to submit, and a large measure of indulgence was promised to those who came forward promptly and helped to restore order. Though order had not been completely restored, owing to the suspicion of the *talukdārs* regarding the real intentions of Government, summary settlements

* The proclamation of March 1858 mentioned six, but one was found later to have rebelled.

sentences of imprisonment up to a limit of seven years. The principal statistics of civil litigation are given below. Civil suits proper are more numerous proportionately to the population than in Agra, but tend to decrease, while rent suits are fewer, but are increasing:—

	Average for 10 years ending 1890	Average for 10 years ending 1900.	1901.	1903.
Suits for money and moveable property.	48,433	48,389	38,641	39,144
Title and other suits ...	7,956	7,307	8,568	7,697
Rent suits	31,066	34,889	37,363	49,658
Total ...	87,455	90,585	84,572	96,499

(Sleeman, *Journey through Oude*, 1858; Hoey, *Memoirs of Delhi and Fyzābād*, 1885 *and* 1889; Irwin, *The Garden of India*, 1880; McLeod Innes, *Lucknow and Oudh in the Mutiny;* Gubbins, *Mutinies in Oudh ; Blue-books of* 1856, 1857, 1858, 1859, 1861, *and* 1865 ; *Papers relating to under-proprietary rights and rights of cultivators in Oudh, Calcutta*, 1867 ; *Conditions of tenantry and working of rent law in Oudh, Allahābād*, 1883.)

Panchāla.—An ancient kingdom situated in the MADHYA-DESA or middle country, and forming the centre of it. There were two divisions, Northern Panchāla with its capital at AHI-CHHATRA or Adikshetra, in Bareilly, and Southern Panchāla with its capital at KAMPIL in Farrukhābād. They were divided by the Ganges and together reached from the Himālayas to Chambal. In the Mahābhārata we find the Pāndava brothers, after leaving Hastināpur (in Meerut District) and wandering in the jungles, coming to the tournament at the court of Drupada, king of Panchāla, the prize for which was the hand of his daughter, Draupadī. The scene of the contest is still pointed out west of Kampil, and a common flower found in the village lanes bears the name of Draupadī. In the 2nd century B.C. Northern Panchāla appears to have been a kingdom of some importance, for coins of about a dozen kings inscribed in characters of that period are found in various parts of it, but not elsewhere. It has been conjectured that these were the Sunga kings who reigned after the Mauryas according to the Purānas,

but only a single name, Agni Mitra, is found both in the Purānic lists and on the coins, though many others are compounds with Mitra (friend). The coins point to an absence of Buddhistic tendencies. Varāha Mihira, the geographer of the 6th century A.D., mentions a people, the Panchālas, who evidently inhabited the region described above.—(Lassen, *Ind. Alt.*, *Vol. I*, *page* 598; Cunningham, *Coins of Ancient India*, *page* 79; Fleet, *Ind. Ant.*, 1893, *page* 170.)

hysical eatures. **Rohilkhand.**—The name is often applied to the present BAREILLY DIVISION; but it also denotes a definite historical tract nearly corresponding with that area *plus* the RAMPUR State and the Tarai *parganas* of the Nainī Tāl District. It is derived from a Pashtū adjective *Rohelah* or *Rohelai*, formed from *Rohu* (mountain). Rohilkhand as defined above includes an area of 12,800 square miles, forming a large triangle bounded on the north by the Himālayas, on the south-west by the Ganges, and on the east by the Province of Oudh. In the north lies a strip of Tarai below the hills, with large stretches of forest land, the haunt of the tiger and wild elephant, and only small patches of cultivation belonging to the Thārus and Boksās, jungle tribes apparently of Mongolian origin, who seem fever-proof. Passing south the land becomes drier, and the moisture drains into the numerous small streams rising in the Tarai and joining the Rāmgangā or Ganges, which ultimately receive most of the drainage. In the northern portions of the Bijnor and Bareilly Districts canals drawn from the Tarai streams irrigate a small area. The climate is healthy, except near the Tarai, and presents a smaller range of temperature than the tract south of the Ganges. The rainfall is heavy near the hills, but gradually decreases passing south. The usual plains crops are grown throughout the tract, but sugarcane and rice are of special importance. Wheat, *gram*, cotton, and the two millets *(jowār* and *bājra)* are also largely produced.

ory. In early times part of the tract was included in northern PANCHALA. During the Muhammadan period the eastern half was long known as Katehr; but the origin and meaning of this term is disputed. It is certainly connected with the name of the Katehriyā Rājputs, who were the predominant clan in it; but their name is sometimes said to be derived from that of the

tract, which is identified with the name of a kind of soil called *Lather* or *katehr*, while traditions in the Budaun District derive it from Kathiawar, which is said to be the original home of the clan. Elsewhere the tribal traditions point to the coming of the Katehriyās into this tract, from Benares or Tirhut, in the 12th and 14th centuries. The portion they first occupied seems to have been the country between the Rāmgangā and Ganges; but they afterwards spread east of the former river. When the power of Islām was spreading westwards, Rāthor princes were ruling at Budaun; but the town was taken by Kutab-ud-dīn Aibak in 1196, and held continuously by the Muhammadans afterwards. The province was, however, always turbulent, and two risings are described in the middle of the thirteenth century. In 1379 or 1380 Khargu, a Hindu chief of Katehr, murdered Saiyid Muhammad, the governor, at a feast; and Fīroz III (Tughlak), foiled in his attempt to seize Khargu, who fled to Kumaun, appointed an Afghān governor at Sambhal, with orders "to invade the country of Katehr every year, to commit every kind of ravage and devastation, and not to allow it to be inhabited until the murderer was given up." Thirty-five years later, when the Saiyid dynasty was being founded, another Hindu, Har Singh Deo, rebelled, and though defeated several times gave trouble for two or three years. Mahābat Khān, the governor, successfully revolted in 1419 or 1420 from the rule of Delhi, and the king, Khizr Khān, failed to take Budaun, which remained independent for four years, till after the accession of Mubārak Shāh, who showed greater force and received Mahābat Khān's submission. In 1448 Alam Shāh Saiyid left Delhi and made Budaun his capital, careless of the fact that he was thus losing the throne of Delhi which was seized by Bahlol Lodī. Until his death thirty years later, Alam Shāh remained at Budaun, content with this small province. During the long struggle between the Jaunpur and Delhi kings, the former held parts of Katehr for a time. In the first half of the [illegible] century few events in this tract have been recorded; but the last [illegible] of the Katehriyās is said to have taken place in [illegible]. In the reign of Akbar the [illegible] of Budaun was a part of the [illegible] of Delhi. The importance of Budaun diminished [illegible] became the headquarters [illegible] Shāh Jahān [illegible] included the [illegible] of Sambhal [illegible]

territory ruled over by the governor of Katehr at this time. Afghāns had been making many settlements in northern India; but were generally soldiers of fortune, rather than politicians or men of influence. Under Shāh Jahān they were discouraged; but at the close of the 17th century they were found extremely useful in the Deccan campaigns, and early in the 18th century the Bangash Pathān, Muhammad Khān, obtained grants in FARRUKHABAD District, while Alī Muhammad Khān, whose origin is doubtful, began to seize land north of the Ganges. The former held the southern part of the present Districts of Budaun and Shāhjahānpur; but the principality he carved out for himself lay chiefly south of the Ganges. Alī Muhammad gave valuable help to the governors of Morādābād and Bareilly against the Rājā of Kumaun, and also assisted the emperor in his intrigues against the Saiyids of Bārha, for which he was rewarded with the title of Nawāb. When Nādir Shāh invaded India, Alī Muhammad gained many recruits among the refugees from Delhi, and took advantage of the weakness of the central government to annex all the land he could seize. The governors of Morādābād and Bareilly were sent against him, but both were slain, and in 1740 he was recognised as governor of Rohilkhand. His next exploits were against Kumaun; but by this time Safdar Jang, Nawāb of Oudh, had began to look on him as a dangerous rival, and persuaded the emperor that the Rohillas should be driven out. In 1745 Alī Muhammad was defeated and imprisoned at Delhi, but afterwards he was appointed to a command in the Punjab. On the invasion by Ahmad Shāh Durrāni in 1748, he was able to return to Rohilkhand, and by judiciously assisting the claims of Safdar Jang to be recognised as Wazīr, obtained a fresh grant of the province. On his death, Rahmat Khān, who had been one of his principal lieutenants, was appointed regent for the sons of Alī Muhammad. Safdar Jang renewed his attempts to take Rohilkhand, and persuaded Kaim Khān, son of Muhammad Khān Bangash, of Farrukhābād, to invade it. The attack was unsuccessful, and Kaim Khān lost his life. Safdar Jang at once annexed the Farrukhābād territories; but Kaim Khān's brother, Ahmad Khān, regained them, and attempted to win the active sympathy of the Rohillas, which was at first refused and then given too late: for Safdar Jang called in the Marāthās,

with whose help he beat the Rohilla and Bangash forces, and Rahmat was driven to the foot of the Himālayas. In 1752 he yielded and gave bonds for 50 lakhs, which were made over to the Marāthās in payment of their services. When Ahmad Shāh invaded India a second time, he sent back Alī Muhammad's sons, Abdullah and Faiz-ullah, who had been in Kandahār since the previous invasion; but Rahmat Khān skilfully arranged a partition of Rohilkhand, so that the brothers fought among themselves, and eventually Rahmat and his friends became masters of most of the province. About this time (1754) another Pathān, named Najīb Khān, was rising in power. At first he acquired territory in the Doāb, but in 1755 he founded Najībābād in Bijnor, and thus held the northern part of Rohilkhand independently of the other Rohillas. After the third Durrānī invasion in 1757, he became *Bakhshī* or paymaster of the royal troops, and the following year an attempt was made, through the jealousy of other nobles, to crush him by calling in the Marāthās. Rahmat Khān and Shujā-ud-daula, the new Nawāb of Oudh, were alarmed for their own safety, and hastened to help him, and the Marāthās were driven out of Rohilkhand. When Ahmad Shāh invaded India a fourth time, the Rohillas joined him and took part in the battle of Pānīpat (1761), and Rahmat Khān was rewarded by a grant of Etāwah, which had, however, to be conquered from the Marāthās. In 1764 and again in 1765 the Rohillas gave some assistance to Shujā-ud-daula in his vain contests with the English at Patna and at Jājmau; but they did not suffer for this at first. In fact the next five years were prosperous, and Rahmat was able to undertake one of the most necessary reforms of a ruler in this part of India—the abolition of internal duties on merchandise. In 1770 the end began. Etāwah and the other territory in the central Doāb were lost to the Marāthās. Najīb Khān and Dunde Khān, who had been Rahmat's right hand, both died. In 1771 the Marāthās attacked Zābita, son of Najīb, and drove him from his fort at Shakartār on the Ganges, and the next year harried Rohilkhand. In June, 1772, a treaty was signed by the Rohillas and Shujā-ud-daula, in which the latter promised help against invaders to the former, who undertook to pay 40 lakhs of rupees f[illegible] The treaty was signed in the presence of a [illegible]

danger to Oudh, and also to the British, from the Marāthās was now clear. Zābita Khān openly joined them in July, 1772, and at the end of the year they extorted a grant of the provinces of Korā and Allahābād from Shāh Alam. In 1773 they demanded from Rahmat the payment of the 50 lakhs promised 20 years before, and again entered Rohilkhand. British troops were now sent up as it had become known that Rahmat was intriguing with the Marāthās, who openly aimed at Oudh. These intrigues continued even when the allied British and Oudh troops had arrived in Rohilkhand, and the Nawāb of Oudh then made overtures for British help in adding the province to his territories. Finally, Rahmat agreed to carry out the treaty obligations, which he had formerly contracted with Oudh, and the Marāthās were driven across the Ganges at Rāmghāt. This danger being removed, Rahmat failed to pay the subsidy due by him to the Nawāb of Oudh. Later in the same year Hastings came to Benares to discuss affairs with the Nawāb, who strongly pressed for British help to crush the Rohillas. While the Council at Calcutta hesitated the Nawāb made secret alliances with Zābita and Muzaffar Jang of Farrukhābād, and persuaded the emperor to approve by promising to share any territory annexed. He then cleared the Marāthās out of the Doāb, and in 1774 obtained British troops to assist him against the Rohillas. The latter were met between Mīranpur Katra in Shāhjahānpur and Fatehganj East (in Bareilly District) in April, 1774, and were defeated after a gallant resistance, Rahmat Khān being among the slain. This expedition formed the subject of one of the charges against Hastings, which was directed to show that the object was merely to obtain money from the Nawāb Wazīr in return for help in acquiring new territory. Contemporary documents show clearly the necessity for improving the western boundary of Oudh as a defence against the Marāthās, and the danger arising from this country being held by men whose treachery had been proved again and again. Faiz-ullah, the last remaining chief of the Rohillas, received what now forms the RAMPUR State, and Zābita lost his possessions east of the Ganges. In 1794 an insurrection broke out at Rāmpur, after the death of Faiz-ullah. British troops were sent to quell it and gained a victory at Fatehganj West. Seven years later, in 1801, Rohilkhand formed

part of the Ceded provinces made over to the British by the Nawāb of Oudh.

The total population is nearly 6.2 million, so that the density approaches 500 to the square mile. In the Bareilly District it exceeds 600. More than 1¾ million of the total are Muhammadans, who form 28 per cent. of the population—a proportion double that found in the Provinces as a whole. Among the Hindu castes in this area may be mentioned the Jāts, who are not found east of Rohilkhand in considerable numbers, the Ahars, who are akin to the Ahīrs of other parts, and the *Khāgis* and Kisāns, excellent cultivators resembling the Lodhas of the Doāb. The Bishnoī sect has a larger number of adherents here than elsewhere.—(Elliot, *History of India, passim*. Strachey, *Hastings, and the Rohilla War*, 1892.) Population.

Sūrasena.—The ancient name of a tract of country round Muttra. According to the Purānas it was the name of the grandfather of Krishna, whose history is closely connected with Muttra. The inhabitants of the tract were called Saurasenas, and Arrian mentions the *Saurasenoi* as possessing two large cities, *Methora* (MUTTRA) and *Cleisobora* or *Cyrisobora* (not certainly identified),* while the *Jobares* river (Jumna) flowed through their territory. Pliny describes the *Jomanes* as flowing between *Methora* and *Carisobora*. Varāha Mihira, the Sanskrit geographer of the 6th century A.D., makes several references to the Saurasenas who were placed in the MADHYA DESA or middle country. The name has been applied to a variety of Prākrit, called Saurasena, which appears to have been the ancestor of the present language described as Western Hindi in the Linguistic Survey of India. In later times part of this tract was called Braj or Braj Mandal, a name which still survives (*vide* MUTTRA DISTRICT)

* Lassen (Ind. Alt., page 127n 3) suggests that this is equivalent to Krishnapura, which he places at Agra. Cunningham (Ancient Geography, India, page 375) identifies it with BRINDABAN Muttra, Agra, and Brindaban, are all on the right bank of the Jumna. *See also* McCrindle, *Megasthenes*, and *Arrian*, pages 140 41 and note.

Cross-references (for Imperial Gazetteer only).

Hindostān; see HINDUSTAN.

Kālī.—River of Nepāl and the United Provinces, bett known as the SARDA.

Karnāli.—River of Nepāl and the United Provinces; s KAURIALA.

North-Western Provinces.—Old name of AGRA PROVINC

Rāmganga (East).—River in the United Provinces: a tributary of the SARDA.

Sarjū; see GOGRA and TONS (Eastern).

Utangan.—A river in Rājputāna and the United Provinces; see *Banganga*.